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Start of first race. Interclubs on starboard tack, Bermudians on port tack.

Bermudians Win Team Match with Interclub Sailors on Long Island Sound

Sensational Situations and Excellent Team Work Feature Series Won by Close Margin

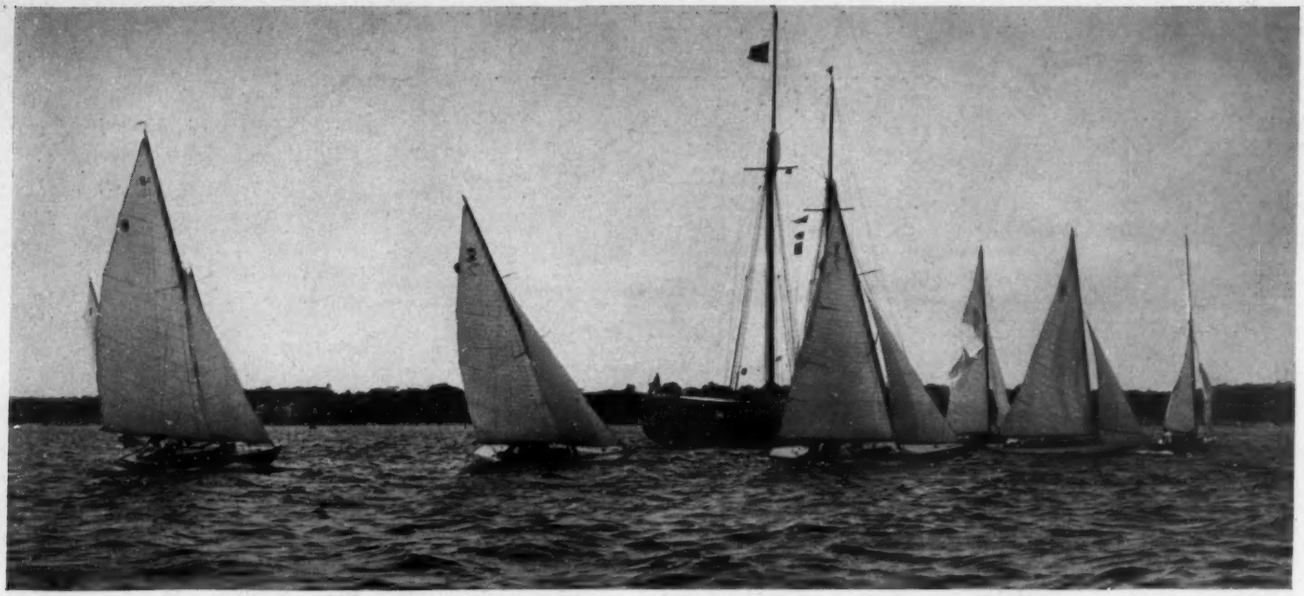
By SAMUEL WETHERILL

FOR hard sailing, tense situations, splendid team work and a thrilling finish, the team match won by Bermudian sailors over the Sound Interclub team on Long Island Sound would be difficult to equal, let alone beat. For the Yankee team ran away with the first race by the overwhelming score of 25¼ points to 11. In the second race two of the American craft came together at the start, with the result that one was disqualified and the other partially disabled. Score: Bermuda, 18; U. S., 17¼. The Bermudians, finding the light weather in the third race decidedly to their liking, and assisted by another American disqualification, scored their second victory by a score of 20¼ to 15. This left them with the problem of gaining 8¼ points in the final race to tie up the series, and more to win out. Could they do it? They could, and they did — by scoring 23¼ points to 13 for the Americans, giving them the series by the score of 72½ to 70½.

Although beaten by Interclub teams in two previous series, sailed in Bermudian waters, the Britishers have proved in this third match that, given an even break in weather and luck, they can give as well as they can take. Their handsome craft, with the same over all and water line length as the Interclubs, have considerably less beam, more ballast and a bit less sail, and are slippery customers in light and moderate going. When the breeze pipes up, the more powerful Interclubs are more than a match for them. In reaching, in almost any weather, the two teams are practically equal; but in running the Bermudians have quite an edge, which the Yankees found out to their sorrow.

Atlantis, the Bermudians' ace.

The Bermudian team consisted this year of *Atlantis*, sailed by the veteran Eldon Trimingham, with K. F. Trimingham and H. D. Butterfield as crew; *Sea Witch*, sailed by Lloyd Jones, assisted by B. Darrell and H. Trimingham; *Starling*, sailed by J. Pearman, with B. W. Walker and E. R. Williams on the sheets and



After the crash at start of the second race, showing *Blue Streak* (3) with torn mainsail.

backstays; and *Flirt*, sailed by Owen Darrell, with Alfred Darrell and B. J. H. Peniston as crew.

The Interclub team, picked by a selection committee composed of Clifford D. Mallory, J. B. Shethar and E. G. Anderson, was composed of the four leading boats in the class standing for the year, as follows: *Aileen*, owned and sailed by Cornelius Shields; *Wee Betty*, owned by G. M. L. LaBranche and sailed by W. W. Swan; *Blue Streak*, owned and sailed by Ralph Manny; and *Bandit*, owned and sailed by Samuel Wetherill.

First Race

The first race, on September 13, was sponsored by the Larchmont Yacht Club, whose committee established a

Atlantis (7), *Aileen* (25) and *Flirt* (3) rounding mark in second race.

starting line near Scotch Caps buoy, off Rye, and set signals for a windward and leeward course of six miles, sailed twice over, with the turning mark off Prospect Point. There was a fresh breeze from a little south of west when the starting gun boomed, and all four of the American craft hit the line with neatness and dispatch, with the Bermudians in unenviable positions. A few minutes after the start saw the fleet splitting tacks, each Interclub having a Bermudian covered.

Aileen and *Blue Streak* covered *Flirt* and *Sea Witch*, while *Wee Betty* and *Bandit* camped to windward of *Atlantis* and *Starling*. *Aileen* and *Blue Streak* easily disposed of *Flirt* and *Sea Witch*, but *Bandit* and *Wee Betty* had a battle royal short-tacking on top of *Starling* and *Atlantis*. The order at the weather mark was: *Blue Streak*, *Wee Betty*, *Aileen*, *Atlantis*, *Bandit*, *Starling*, *Sea Witch* and *Flirt*.

On the run to leeward *Blue Streak* and *Wee Betty* sailed wide of the course to the eastward and lost valuable ground. *Aileen* could not hold *Atlantis* down wind, so the end of the first round saw *Atlantis* in the lead, closely followed by *Aileen*, *Bandit*, *Wee Betty*, and *Blue Streak*, with *Starling*, *Sea Witch* and *Flirt* trailing.

Wee Betty and *Blue Streak* went about their business on the second beat to windward, and quickly opened up a gap in the freshening breeze. *Aileen* got by *Atlantis*, and then tacked on top of her, while *Atlantis*, in turn, was trying to hold *Bandit* back. With *Aileen's* help *Bandit* finally got by, and at the weather mark the order was: *Wee Betty*, *Aileen*, *Blue Streak*, *Bandit*, *Atlantis*, *Sea Witch*, *Starling* and *Flirt*.

Atlantis soon ran by *Bandit*, and the latter promptly camped on her wind in an effort to slow her up and save *Blue Streak*. A fierce luffing match ensued, first one and then the other having a momentary advantage. But the Britisher had the cleanest pair of heels and finally shot across the line six seconds ahead of the American craft, with *Blue Streak* safely across ahead of both. Score: U. S., 25¼; Bermuda, 11.

Second Race

A strong, puffy nor'wester greeted the crews on the following morning, most of the skippers bending on their heavy weather sails before attending the luncheon served by Commodore Floyd L. Carlisle aboard the Manhasset Bay Y. C. committee boat, *Michabo*, which was anchored close to the breakwater off Larchmont Harbor. The wind moderated a lot during lunch, however, so there was a scramble to shift sails before the start.

The course signalled gave a beam reach to Parsonage Point buoy, a run to buoy N-2, off Motts Point, and a beat home, a distance of 9 miles. The starting line was at such an angle that the weather end of the line was much preferable, and all the boats made for it in the puffy, variable nor'wester. A hard puff just before the gun brought most of the boats to the line too soon, and there was a lot of maneuvering to keep from going over before the gun. *Aileen* was over too soon, and had to return.

(*Continued on page 106*)

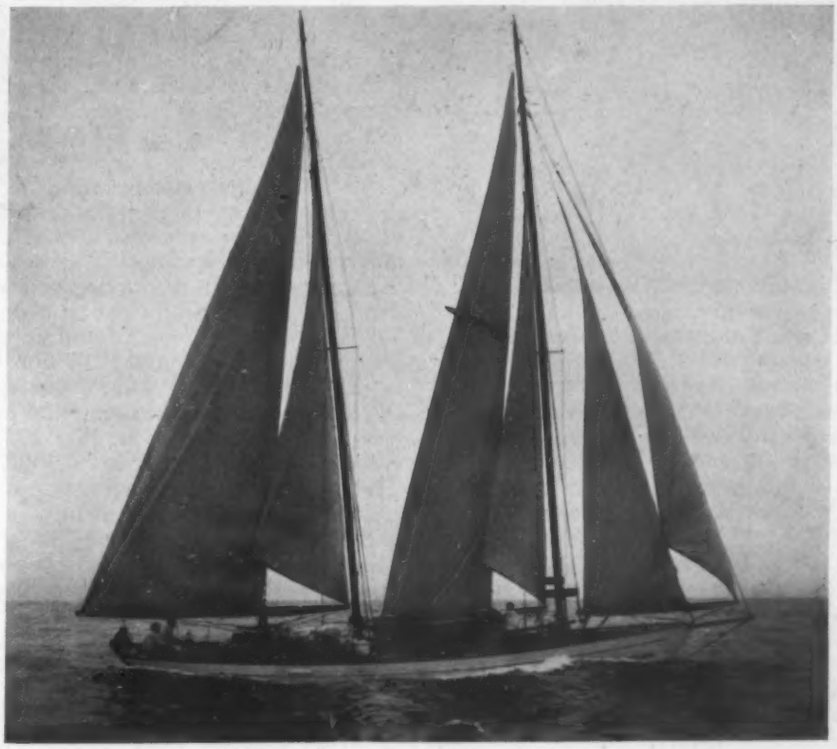
The Loss of the Yacht *Rofa*

The First Authentic Account of the Dismasting and Abandoning of the Little Schooner 800 Miles East of New York

By WILLIAM ROOS

SINCE there has been some comment and misunderstanding regarding the loss of the *Rofa* in the recent Transatlantic Race, I have been asked to give a brief account of her and of what happened during the week we were at sea. There is no intention, in writing this article, of justifying our going to sea with an untried rig.

When the Spanish Race was first announced Mrs. Roos and I hoped we might be able to go, but business did not permit our making arrangements then. About the middle of March we thought we might be able to go if we could find a suitable ship. After a long search we located *Rofa*, and bought her about May first. She was two years old, 50 feet over all, 40 feet water line, 14 feet 7 inches beam, 6 feet draft, and with ample freeboard. She was about the size which Mrs. Roos and I could, if need be, handle alone. We thought that this might be necessary, at times, such as two winters ago when the two of us, after discharging our cook at Key West, sailed alone up to Chicago.



The *Rofa* with the experimental "jib-boom" rig with which she started the Transatlantic race.

There seemed to be ample time to rerig *Rofa* and still leave us about three weeks in which to try her out. But we were disappointed in this. The shipyard where she was fitted out had work more important than ours, and as this was not finished on schedule, ours was left until a very short time before the race. We had planned that if, after a trial, the new rig was not a success we would replace the old one.

We finally left the yacht yard on Narragansett Bay where *Rofa* was fitted out, under power, with a cook and two riggers from the yard on board, at 5 o'clock, the Monday night before the race. Our standing rigging was finished, but no sails were bent or running rigging rove. *Rofa's* deck looked like a hopeless jumble of wire stays and rigging. Off Point Judith we ran into a choppy sea and our foremast started jumping, bending and bowing back and forth in the center. The riggers looked at it and decided the shrouds and stays needed setting up. Charlie, the foreman rigger, said he would not go up the mast unless we would run in behind Point Judith Breakwater. The turnbuckle for the forestay had been put up the mast. This I did not discover until it was too late to change. Setting up the stays and shrouds helped somewhat. The two riggers and our cook turned in, while Mrs. Roos and I ran the boat to New Rochelle, where we arrived about 11 o'clock Tuesday morning. We shipped a good deal of spray during the night, and the water ran like a shower bath under the slide of the forward hatch over on to the galley range, putting out the fire as quickly as we could light it. It also poured through the sides of the covering board and deck, and we found it necessary to pump the boat out three times during the night. Inside we were a hopelessly wet mess. At New Rochelle our cook left us and we had to get another. It was about this time we discovered that the gaff on the foresail was a foot too short. Furthermore, none of our supplies were aboard.

At this point I wanted to withdraw from the race, but Mrs. Roos would not give up so easily. Two days remained before the start. She told me that if I got the boat ready she would be responsible for the food supplies and for a long list of things we still needed. We moved the yacht down to the Marine Basin in Brooklyn. Here we had a foot cut off the leach of our foresail so that it would fit the gaff. The strut under the main boom had been made so that it just skinned past the slide, and when we hoisted the mainsail it tilted about a quarter of an inch and was torn off when the boom swung out. We had to have this shortened and put back.

On Friday our amateur crew, Walter Schoeler, Edwin Hotchkiss and Charles Townsend arrived. They were strangers, but were very willing. There seemed to be no end to the food and supplies that Mrs. Roos kept sending from New York. These were all dumped on deck and then stored away by the crew. The two riggers were still tightening stays and shrouds, bending sails and making running rigging from designs which they had brought with them. The carpenters from the Marine Basin put bunk boards on the berths, erected rail stanchions and tried to stop leaks in the deck houses, such as in the sill under the slide over the

Squaresail set on stump of the foremast about 20 feet above the deck, after both masts carried away.

galley, which was too low and allowed the water which accumulated between the slides to run over. I was doubtful about how much gasoline to take. Our engine, a 60 horsepower Kermath weighing 1,500 lbs., was off center on the port side, and the 130-gallon gasoline tank was on the same side up against the side of the ship. I wanted to fill this tank, but figured it would be necessary to take about 1,500 lbs. of lead out of the bilge and place it far out on the starboard side which meant, on account of the form of the hull, that it would have to be above the water line. I had kept my propeller on although there was no handicap allowance, and I wanted to carry a full tank of gasoline because after what we had seen I did not trust our slender masts, with their 18-inch spreaders and light rigging. Finally, I decided to carry 50 gallons, which was enough for the generator. After measuring, we found that all our supplies, with 450 gallons of water and 50 gallons of gasoline, did not put us down as much as we had anticipated. The boat was only about three inches below normal, which still left us good freeboard.

A tug was ordered to tow us to the starting line the next morning. Just before we started towing I sent one of our crew to the hardware store to get some large shears with which to cut stays in case we lost our masts. He came back with a cold chisel and a block of iron, saying that shears large enough to cut steel stays were not available.

We had turned in about 2 A.M. the night before — and, in fact, every night for the past week — and were very tired when being towed out Saturday morning. The gasoline tug was not powerful enough, and when we hoisted our mainsail and jib to help, we began to run up on her and had to cast off. Everything seemed to go wrong. The sea was choppy, and this upset our crew. The *Corsair* passed us, on her way back from the starting line, flying a large Spanish flag. We thought she was the committee boat returning and that they had given us up. However, we were determined to go to Spain and so continued on to the starting line. We had not given the committee credit for so much patience. When we neared the line we saw their tug coming to meet us. Mrs. Roos was steering and trying to keep clear of a photographer's boat that insisted on crossing our bow every two minutes. I was trying to set the sails and at the same time lash the track on the foreboom. The screws were too short and had pulled out.

We had a good breeze from the east, and soon worked off and out of sight of land. Nothing unusual happened except that our jib halliard parted and let down the jib. All our running and standing rigging was new. I thought it was too light when the rigging plan was laid out. We hoisted one of the crew up the foremast on a bo's'n chair. The pitching and whipping of our slender mast proved too much for him before he could finish, and I had to make two trips up before I could reeve and splice a new halliard. During the evening and night the wind died out, and we had barely enough steerageway to keep clear of some fish nets on the Long Island shore, and to come about on the port tack. Mrs. Roos was at the wheel almost continuously during the first day and night, while I had my hands full straightening out the rigging.

When we started there was very little time to stow the stores, so they were thrown in the most convenient places. In the morning Mrs. Roos went below, and with the help of Raymond, our Spanish cook, removed the canned goods and other articles on which the crew had been sleeping, and made their bunks. The saddest spectacle of all was a large plum cake sent to me by my mother, and a bunch of bananas.

At noon, July 1st, our log showed 90 miles, and our dead reckoning placed us at latitude 40° 40′ N., longitude 72° W. It was foggy all day and we were unable to get any observations. That night all our crew stood watches, having recovered from seasickness, and from then on they did all we could ask of them, and more.

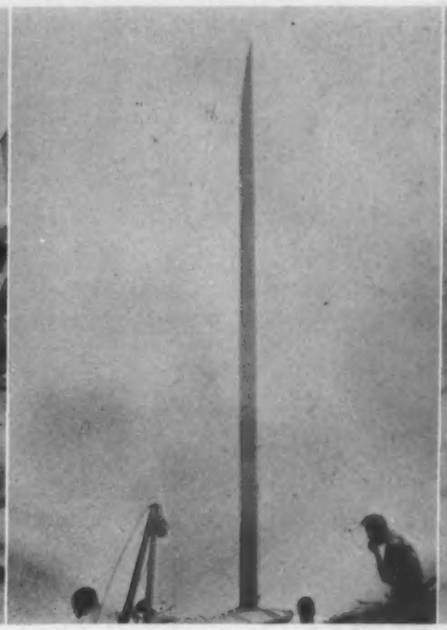
From July 1st to noon, July 2nd, we made 120 miles, course S. 58° E. to latitude 39° 30′ N., longitude 69° 40′ E. The wind was light, changing gradually from southeast to south. Our sails were drawing well, and although the wind at times died out completely our log always kept spinning. Our electric fog horn went out of commission, and so we had to exercise our lungs on a horn that required a gale of wind to blow. After standing on my head to look down in the lazerette and crawling down there, I found that the carpenters had cut the wires in rebuilding the cockpit, and the electrician, in repairing the wire for the horn and binnacle light, had simply twisted the broken ends together without taping them.

July 2nd to July 3rd, course N. 75° E., distance 140 miles to latitude 40° 10′ N., longitude 66° 50′ W. Wind light and changing from south to southeast. Foggy.

About 11 A.M., July 3rd, we sighted a sail astern. As it slowly grew larger we could make out the *Mohawk*, one of our competitors, and about twice our tonnage. I roused

Loading supplies at Marine Basin before the start.

Clearing up the mess on deck after being dismasted.



All that was left of the foremast.

Preparing to rig the squaresail on what was left of the foremast.

the crew and we broke out the balloon jib. Up until then the wind had been light, and we could have used light sails to advantage, but I was afraid to get them up because I thought that if we were caught in a squall I might not be able to get them in alone. It took a long time to set the squaresail, as we had no braces, and the jackstay for the balloon staysail was missing. Before we finally got these up the *Mohawk* had passed us. About sunset she disappeared over the horizon and we thought she was gone.

July 3rd and 4th, course N. 84° E., distance 107 miles to latitude 40° 20′ N., longitude 64° 25′ W. Wind light southeast. On the morning of the 4th the *Mohawk* was again off our beam. We were within sight of her during the day until she finally disappeared to the south of us. We figured that with a 57-hour handicap on the *Mohawk* we stood a good show. Raymond, our cook, performed wonders in the galley. He cooked three hot meals a day, every day, besides two lunches, and gave the midnight watch coffee and sandwiches. It was not very easy to cook in the small galley when the boat was rolling and pitching, and worse still to carry plates full of food from the galley forward to the cockpit aft, where we ate.

July 4th to 5th, course N. 84° E., distance 165 miles to latitude 40° 25′ N., longitude 60° 45′ W. The wind during this time was southeast. Its strength varied from fresh to almost a calm at times.

July 5th to 10 A.M. of the 6th, course N. 80° E., distance 175 miles to latitude 41° N., longitude 57° W. Wind was fresh southwest, and we made good time until midnight, when it became very light. On the night of July 5th a light mist. Rain started, which continued off and on during the night. We kept going fairly well, considering the light wind, which was on our starboard quarter. On the morning of July 6th it seemed to be clearing. About 10.15 A.M. the man at the wheel called, "It is going to rain; get me my oilskins." Mrs. Roos threw them out to him. Then he called again, "Better close the slide; it is going to rain." This was nothing new, as it had been raining, off and on, all night. I reached for the slide, and as I did so we heard our foremast break, and a second later, our mainmast.

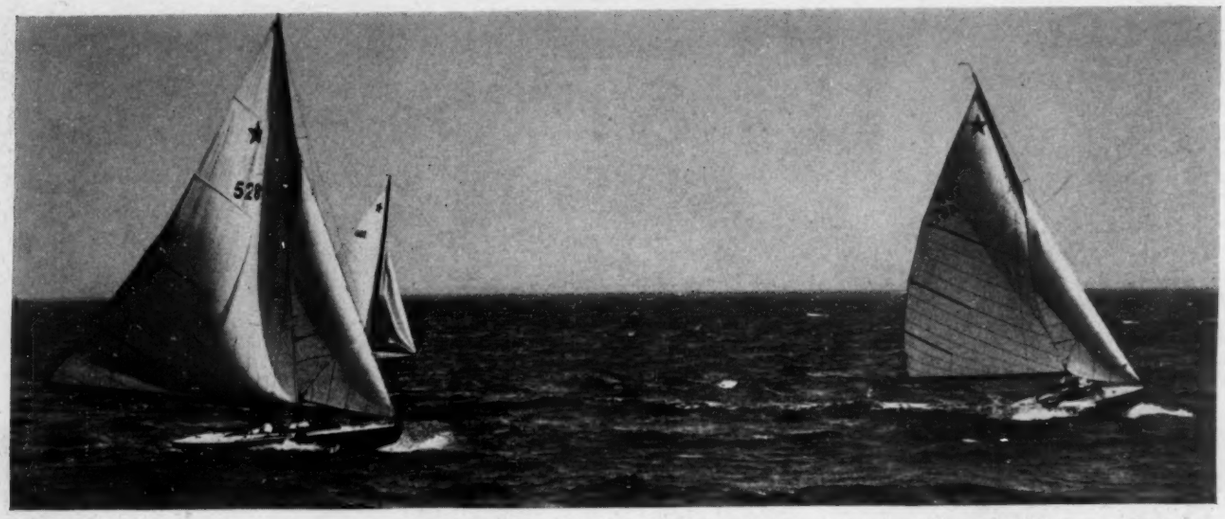
The boat had not heeled over enough to be noticeable inside. The man at the wheel said she did not put her rail under. It was a sudden puff and a rain squall that was over in five minutes. No one lost any time getting on deck when we heard the masts break. Mrs. Roos brought up some knives, and the cold chisel and block of iron for which I had sent Walter the last minute before sailing. They were very useful just then. Before we could get clear of the broken parts of our masts it was necessary to cut 23 steel stays, besides the running rigging, none of which had broken. Immediately after the short squall the sea was smooth and our sails, with the jumble of spars and rigging, floated on the long easy swells. A great many small brightly colored fish came from apparently nowhere and made themselves at home under the hull and in the floating sails while larger ones cruised around just beyond. It took us two hours to clear the wreck and salvage what we could. I felt very thankful that we did not have to clear away the mess in a rough sea when our broken spars might easily have knocked a hole in our hull.

We were left with a foremast broken off about 23 feet above the deck, and a mainmast split down to the deck. There was nothing up the mast with which to hoist sails, so I made two eyes and put a bo's'n chair on each. Walter and Charlie took turns up the mast, moving these eyes up alternately and shifting from one bo's'n chair to the other while doing so. Finally these eyes reached the top of the foremast and we were able to hoist the yard and squaresail. The yard was about 22 feet long and the sail about 20 feet square.

After the sail was set Mrs. Roos called my attention to the fact that it looked as though the swells were going to roll out the 20-foot stump of a mast, which we had left, together with the squaresail. It jerked from side to side. I examined the deck. It seemed all right, and the mast was properly wedged. Then I examined the step and heel of the mast. Nothing was split or broken, but the heel of the mast had been cut too slack for the step after the mast had been lengthened, and allowed a great deal of play. So we had to put shrouds on this short stump in order not to lose it. After that the crew went in for a swim, while Mrs. Roos and I tried to figure out what was best to do.

The Gulf Stream was pushing us a mile an hour and the

(*Continued on page 104*)



Maneuvering for a start on the Chesapeake. (At left) *Northern Light*, Massachusetts Bay Fleet; (right) *Juno*, Delaware River Fleet.

Colleen Wins Star Class Trophies

A Large Fleet Has a Week of Keen Racing at Gibson Island, on the Chesapeake

THE Atlantic Coast Championship of the Star Class has at last come into its own; so, in fact, has the Lipton Trophy of the Chesapeake. Until this year the former event has always been held in conjunction with the "Internationals," and the latter drew but few entries, all local. In 1927 the *Mackerel* was defeated in the sail-off for international honors after a triple tie with California's *Tempe II* and Central Long Island's *Colleen*, but Harold Smith carried the Atlantic Coast title back to the Chesapeake, where — this year for the first time — it took its place on the long schedule of Star championship events as a separate and distinct fixture.

The story of Chesapeake's first race week, held during the second week in September, centers around the Bedford family. F. T. Bedford, in *Colleen*, won both feature events, hands down. Each consisted of a series of three races, sailed for on alternate days. His daughters, however, were the real sensation of the week. The Chesapeake fleet is a family fleet in which many wives and daughters sail, both as skipper and crew, but the performance of these two girls from Central Long Island was a revelation even to them. With Helen as skipper and Lucy as crew, the Bedford sisters had *Ardara* up among the leaders all the time. They won prizes in three out of the four special races, demonstrating beyond question that they are the equal of any male crew that ever handled a Star, and would probably have placed in the Lipton series had the weather been at all reasonable.

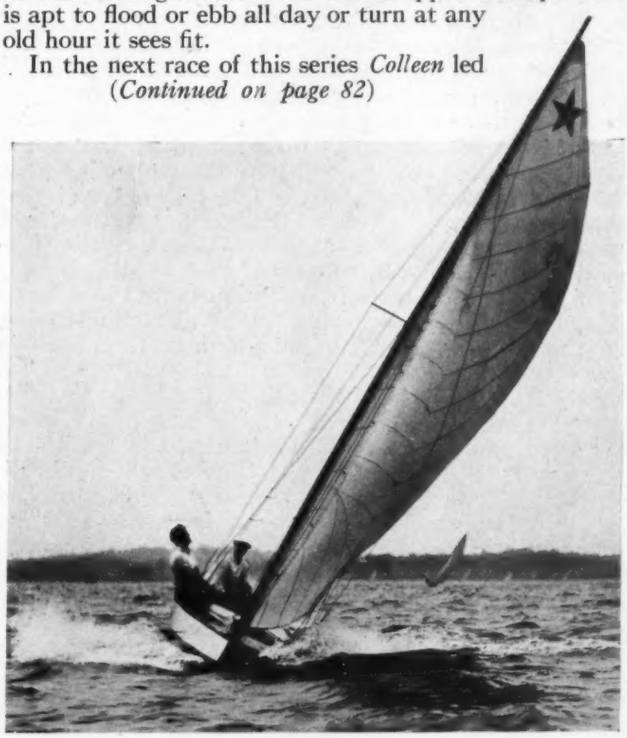
Nine fleets were represented in the championship series, the entries having been previously selected by elimination. On days when races in this series were scheduled, a special race was started ten minutes later for all others present. The Lipton series, to which all were eligible, boasted of no less than 30 entries, establishing a new record for major Star interfleet events.

Those who carried off the daily honors in these various races were as follows: Atlantic Coast championships — Smith's *Mackerel*, Bedford's *Colleen*, and Parkman's *Fleet Star*. Chesapeake Lipton Trophy series — Bedford's *Colleen*, Elder's *Iscyra II*, and Robertson's *Juno*. Special races — Bedford's *Colleen*, Pearre's *Blue Fish*, Dr. Wise's *Starfish*, and the Bedford sisters' *Ardara*.

Mackerel won the championship race, but it was the defender's one and only burst of old-time form during the week. The Atlantic Coast series was somewhat marred from the very start, for in this initial race four of the nine entries were credited with a zero in the point score. *Fleet Star*, which finished two seconds behind Smith, was disqualified for having forced an overlap on *Colleen* at one of the marks. *Little Bear*, *Winsome*, and *Chipmunk* were unable to figure the tide and fetched up on the outer mark, withdrawing from the race. While on the subject of tides, no man can figure them out on the upper Chesapeake. It is apt to flood or ebb all day or turn at any old hour it sees fit.

In the next race of this series *Colleen* led

(*Continued on page 82*)

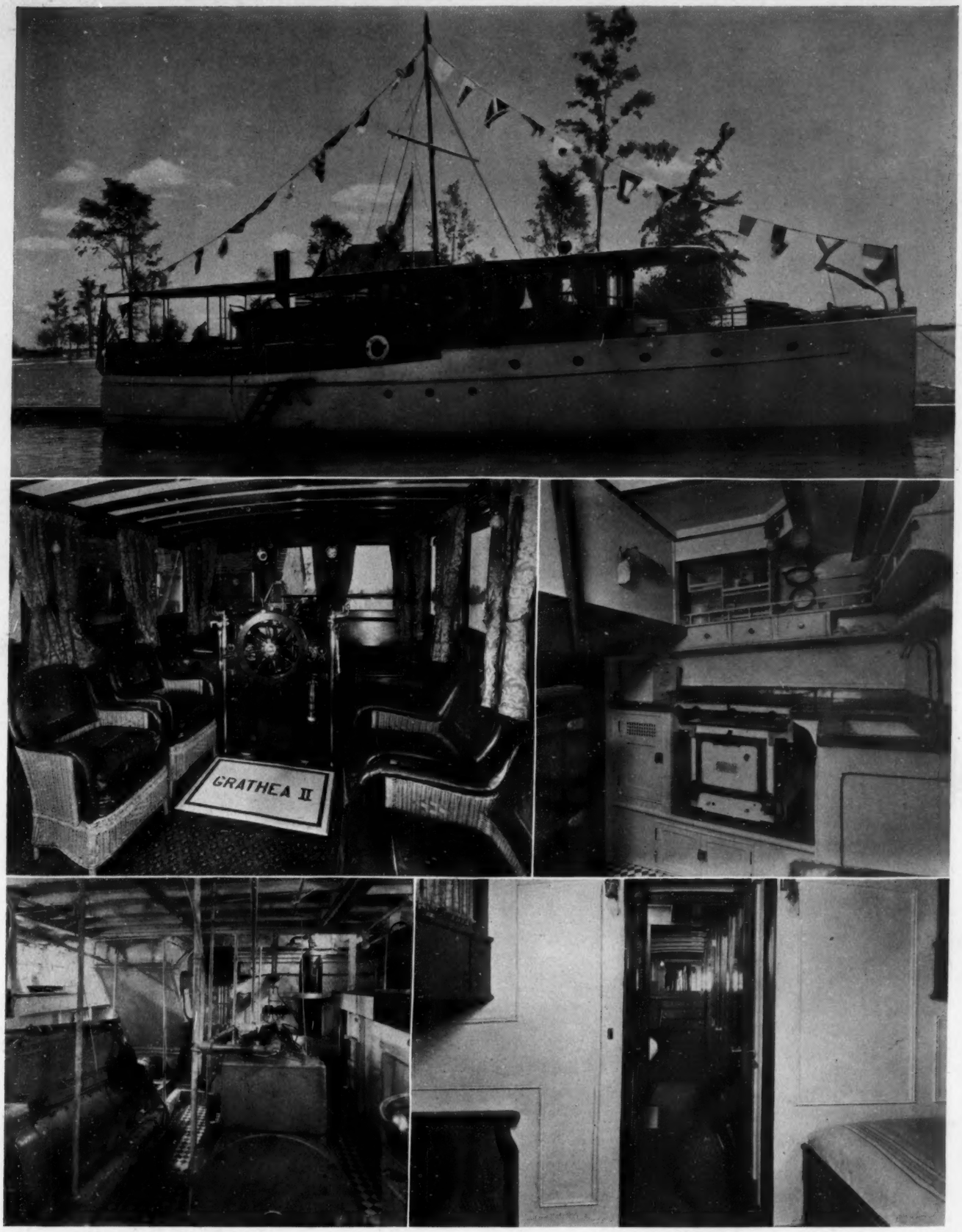


Colleen, F. T. Bedford's Central Long Island Sound Star, won both the Atlantic Coast Championship and the Lipton Trophy.

Some of the New Power Cruisers and Auxiliaries of 1928

Departing in many respects from the usual type of fast power cruisers, *Blackbird*, a 94-footer owned by Albert L. Smith, of Philadelphia, has received much favorable comment wherever she has been seen. With straight sheer and a sunken deckhouse, her profile is pleasing to the eye, and she has the spacious accommodations of a houseboat, as the reproductions show. There are two double and two single staterooms for the owner's party and three baths. The power plant consists of two Winton gasoline motors of 350 h.p. each, giving a maximum speed of 19¼ miles. *Blackbird* was designed by Cox & Stevens, and built by Julius Peterson, Nyack.

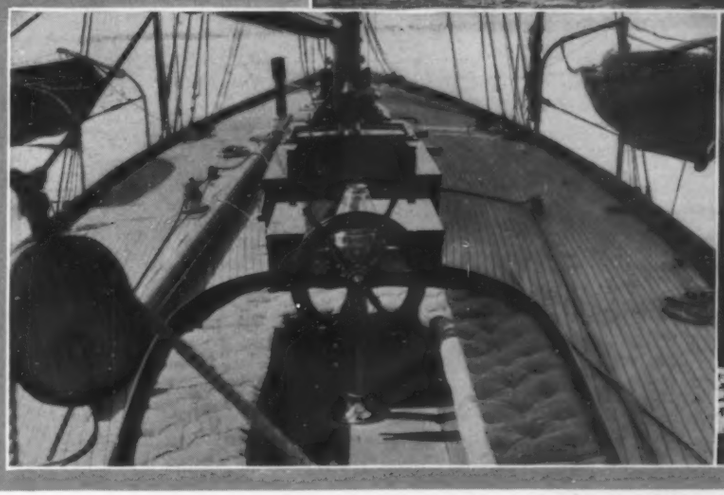
Grathea II, A New Great Lakes Cruiser



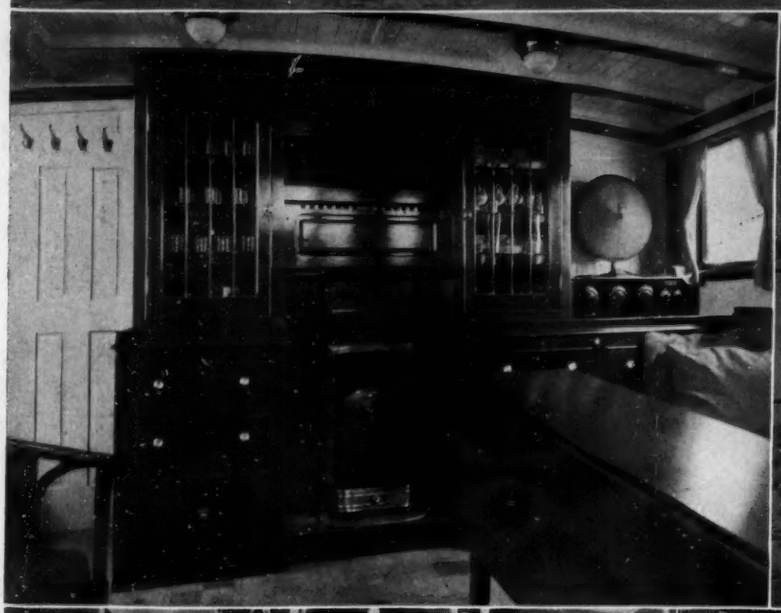
Owned by E. T. Strong, of Detroit, *Grathea II* is a new yacht this year, from designs by the Defoe Boat and Motor Works, who also built her. She is 57 feet long and for power has two Kermath 100 h.p. reduction gear motors. Attractively furnished, as the pictures show, she is completely equipped with electric refrigeration, automatic lighting system, electric pumps, etc.

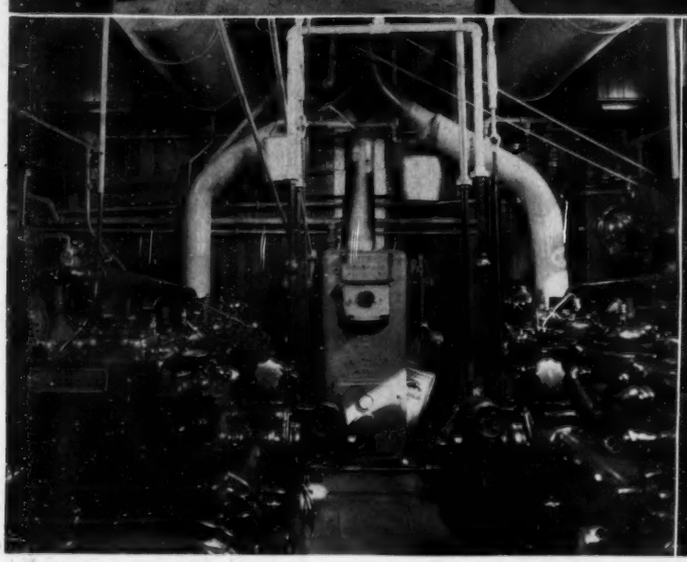
Sheerness, owned by Marshall Sheppey, New York Yacht Club, and designed and built by the Herreshoff Mfg. Co., is a fine example of a fast cruiser with auxiliary power. She is 82′ over all, has 16′ beam, and for power a 6-cylinder Scripps motor.

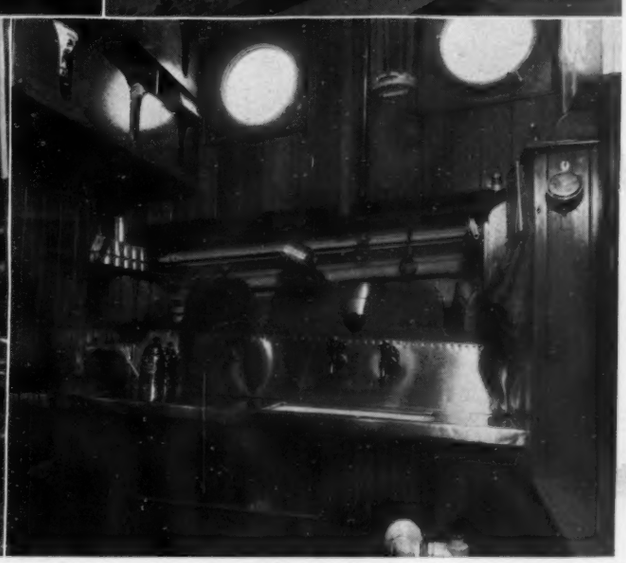
Handsomely finished below and on deck, *Sheerness* is unusually attractive, as these reproductions of the main saloon, guest stateroom and cockpit show.



Penguin, An Unusually Able 72-Foot Diesel Yacht

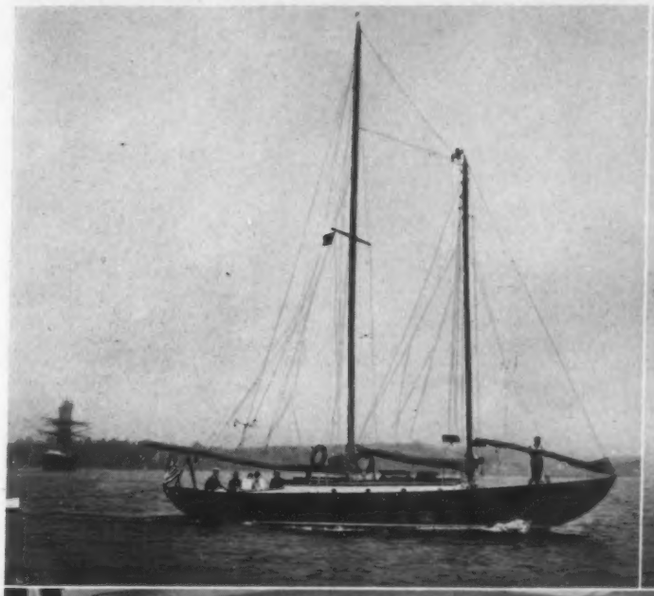






Something out of the ordinary in power boat design, *Penguin,* owned by Dr. Austin Fox Riggs, of Stockbridge, has attracted attention wherever she has been seen this summer. Designed by John G. Alden for long coastwise cruises, she is exceedingly able and very roomy and comfortable. The pictures show the dining saloon in the forward deckhouse, a corner of one of the staterooms, the engine room with the two 4-cylinder Fairbanks Morse Diesel engines and heating plant, and the completely equipped galley.

Eastward — A 45-Foot Auxiliary Cruiser

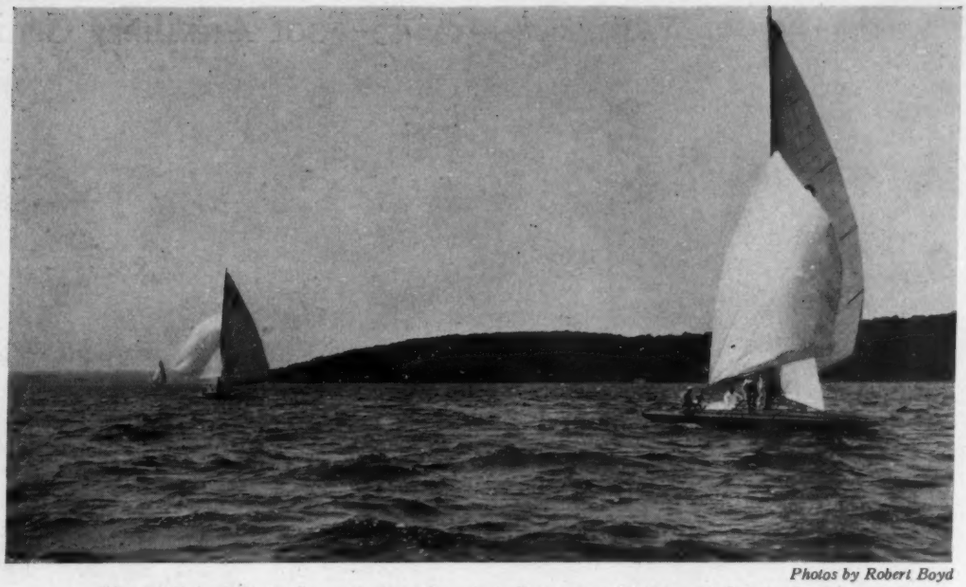


This little knockabout schooner, designed by Eldredge-McInnis, Inc., is a distinct addition to the growing fleet of moderate sized auxiliaries. With a moderate rig she is smart under sail, is easily handled with a small crew, and under power she does seven miles or better with a Gray 40 h.p. motor. The cabin house is narrow, giving plenty of deck room, while the cockpit is unusually roomy. Below, she is well laid out, with one large cabin, containing four built-in berths and wide transoms, two of which form additional berths. Her plans appear on page 77.

Inland Lake Scows Provide Fine Racing

A Large Fleet Takes Part in Inland Lakes Regatta on Lake Geneva

By SAMUEL DAUCHY



Photos by Robert Boyd

Class A Inland Lake Scows before the wind. *Privateer* (right) and *Little Smoke*.

THE yachtsman who views for the first time a regatta of inland lake "scows" must revise his conception of the sport in many ways. Entry lists in the various classes are so large, speed with fresh breezes is so phenomenal, and changes in position so frequent and startling that the races offer a constant thrill. No race is ever won until gun-fire, as the wind in these inland lakes always comes off some nearby shore, is constantly changing in direction and rises from a zephyr to a knock-down breeze in a few seconds. Boats well to windward, by some freakish change of wind find themselves broken off three and four points, and a rival is out to windward almost in the traditional wink of an eye. Speeds which cause the lifting of eyebrows have been made and well authenticated. Boats are known to have run legs of one and one-third miles in less than three minutes.

These boats are an evolutionary development, perfectly suited to the requirements in the case. Over all length, sail area, and certain scantling restrictions are the principal limiting factors, and the type as developed produces a remarkable racing machine — somewhat acrobatic in its demands on the crew but lightning fast and handling like polo ponies in a scrimmage.

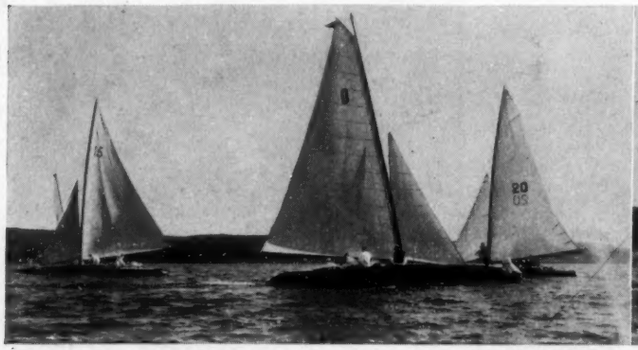
Narrow boats with hard bilges, wider boats with slack bilges, have been tried with varying success. These boats are designed with the fact constantly in mind that the craft must sail — if she is sailing to the best advantage — at a considerable angle of heel. Double rudders and bilge boards are, of course, universal, and now comes the curved and buckled bilge board designed to correct the "drift" common to all racing craft. The art of design is changing for the better every year.

In the racing the point perhaps to be noted particularly is the age of the skippers and crews. School boys, school girls, youths of all ages, match the grown-ups in ability and interest. Fathers and sons man the boats together. As race week proceeds the excitement grows high. Speed boats line the course and follow the racing fleets; all around are wooded shores and sparkling water and sunshine on white canvas. It all goes in a whirl. The races are over in no time at all as the boats flash around the triangles and get the finish gun.

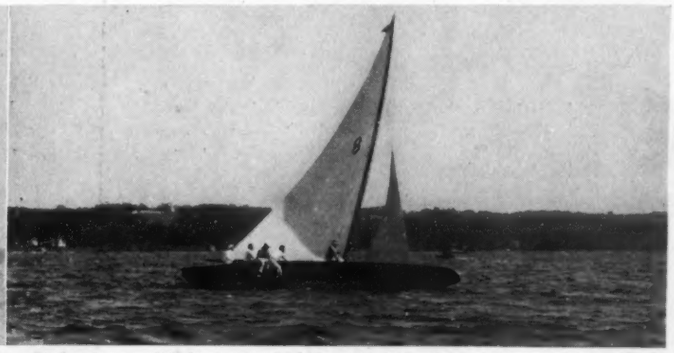
At Lake Geneva there were three classes in the annual regatta last summer. The "A" boats numbered 15 and the Delavan, Minnetonka, Neenah-Nodaway, Lake Geneva and Oshkosh Yacht Clubs were represented. "A" boats carry 500 square feet of sail and are about 38 feet long. For years they have been the top class at these regattas. The "C" boats are a restricted class of cat boats not over 20 feet in over all length and with a sail area of 225 square feet. There were 47 of these water spiders on the entry list, and as a judge I can testify personally to the difficulties of passing on rights-of-way at the various marks. The "E" boats are jib and mainsail craft, limited to 28 feet over all length, 285 feet of sail and also with certain requirements of molded depth and scantlings. Thirty-five of these tried in each race to hit the line at gun-fire. The results may be imagined. Race officials learn the art of overlooking minor lapses caused by eager, crowding skippers, provided no unfair tactics were used or intended.

Monday, August 20th, saw no morning races through lack of wind, but by starting time in the afternoon a spanking 18-mile breeze came in and the various crews were kept busy riding the bilge boards throughout the weather legs and reachers. *Ann How* and *Challenge*, both of Lake Geneva, capsized with no damage except injured feelings. *Two Sallies*, owned and sailed by Charles Bell, of Minnetonka, led the fleet home. *Kingfisher*, of Minnetonka, and *Hummingbird*, of Delavan Lake, finished in second and third places.

(*Continued on page 82*)



Rounding a mark. Left to right: *White Cap III, West Wind, Kingfisher.*



***Privateer*, with her crew "riding the bilge boards" to hold her on her feet.**

Photos by M. Rosenfeld

Fan Kwai **is a 62-foot power boat whose complete electric equipment makes her operation automatic, with the exception of steering.**

Fan Kwai, the Automatic Boat

Electric Mechanisms Have Taken the Place of a Crew on This New Fishing Yacht

By REGINALD W. CROWLY

EVEN the mooring lines are to be shot ashore at the touch of a switch when the *Fan Kwai* goes alongside a pier or landing float. If her dories are to go into the water not a hand touches them; they are automatically swung outboard and lowered by the mere closing of a switch. When anchor is to be weighed the switch takes the order, and automatic gear brings the anchor home. If a thunder shower comes up and rain starts suddenly, the big glass screens for enclosing the deck are lowered by electricity.

Fan Kwai is more than modern; she is years ahead. She represents, even in this age, a conception almost as fantastic as Jules Verne's submarines and airships appeared to his world, but with this striking difference, that, whereas Jules Verne's creations were fictions of intelligent anticipation, the *Fan Kwai* is imagination materialized. Here is a boat in which the owner has embodied not only what he desired of the most advanced development in the marine field, but in which he has incorporated, in practical form, the conclusions of an original and comprehensive study in the substitution of electrical machinery in place of human labor for the handling of a boat. The complete replacement of captain, engineer, deckhand and steward by electric switches gives yacht owners cause for reflection, and has brought about the development of new devices that may soon find extensive adoption.

This study has become a hobby of *Fan Kwai's* owner, Col. H. H. Rogers. It had its inception in his desire for greater convenience than the boat builder's art seemed able to furnish. It was the outcome of trouble encountered in installing a piano aboard his first *Fan Kwai*, a 40-foot fishing boat, that the whole idea of the new *Fan Kwai* germinated. Permanently installed on deck, a piano would often be in the way, and there was no cabin in which to house it. What simpler, thought Colonel Rogers, than to have a disappearing piano — one that would stow under the deck when not needed and could be quickly raised when desired? "It can't be done," chorused the designers and boat builders. So the owner looked around for a man who could do it, found the man, and in due course had the disappearing piano installed. It was a success.

This led to the thought of a new and better fishing boat, which in a length of no more than some 60 feet would combine something of the spaciousness of a large yacht's after deck; something of the shelter of her living room for inclement weather; something of her weather comfort reproduced in the much smaller dimensions; a galley fit for any yacht; and a speed of 16 land miles per hour. It would be a boat on which a dozen guests could lounge, with plenty of room to spare, and on which a party of 25 people would not be a crowd. Orthodox practice is entirely incapable of fulfilling such exactions, but Colonel Rogers had based his thoughts of the new boat on the inspiration of making electricity do what the crew had done before and thus reclaiming for the use of himself and his guests the fore part of the boat normally taken up by the captain, engineer, deckhand, cook and steward.

He was not to be balked by the discouragement his proposals elicited. He figured that the phrase, "It can't be done," merely betokened that the speaker had a closed mind. He was confident it could be done; he wanted it and he was determined to get it. He searched for the men to develop the things that had never been done before; he gave them his ideas; and the amazing boat of his conception has become an actuality.

Measuring 62 feet over all and 14 feet moulded breadth, *Fan Kwai* has a displacement of about 18 tons on a draft of 3 feet 8 inches. She is a wooden boat, solidly, but not heavily framed, with more beam than a speed boat type, but with a fine entrance and a clean run aft to suit her maximum of 16 miles an hour.

No machinery is visible, all of it being installed in the shallow hold compartments below the main deck, with access only through large hatches let in flush. This was essential if the deck space was not to be broken up. Main engines, generators, electric motors, auxiliary generating set, battery, stabilizer, gas-making plant, steering engine and piano fill the holds, and all are controlled by switches, push buttons or levers. The only indications of power

The glass-enclosed cabin of the *Fan Kwai*, showing electrically operated glass screens and the piano, which is automatically stowed below when not in use.

aboard are the main switchboard and the instrument panel at the wheel platform.

It was in order to have the main deck serve the dual purpose of an open space and of a sheltered space, convertible at will and without fuss or bother, that Colonel Rogers conceived the electrically manipulated glass screens. The alternative would have been to cut off part of the space for a cabin. When, under the new plan, all the large glass windows on the *Fan Kwai* are lowered, the main deck is entirely enclosed except for about four feet at the stern, and thus becomes all sheltered space.

Big glass screens are heavy and difficult to handle, especially if, when open, they are to be folded out of the way. Small glass screens become mere windows and present too many obstructions to vision and to airiness. *Fan Kwai* has twelve large glass screens, four single ones across the front of the main deck space and four along each side — the smaller screens under the bridge on both sides do not open. To have these screens raised or lowered by a sailor would nearly always entail the disturbance of guests, and if no sailor is aboard, the operation is not an enviable one for either owner or friends.

The simplicity of the electrical contrivance for manipulating them settles the problem. Each screen has its own individual master switch, motor and gear, and the lifting and lowering movements are fitted with limit switches. Reference to the illustrations of the *Fan Kwai's* deck space will show that the mechanism is almost totally concealed. The forward screens open outward; the side screens fold inward with a jack knife movement and are automatically locked to the carlines of the shade top. All operate independently, permitting any adjustment or combination of shelter to meet changes in wind or weather without anyone having to move a chair. Roller awnings are fitted outboard of each glass screen.

The only indications of power aboard are the main switchboard (at right) and the instrument panel at the wheel.

Provision for fishing is made aft, where three swivel armchairs are located. Normally a chair of this type is not very practical on a boat, but on the *Fan Kwai* it can be used with comfort because of the stabilizer which suppresses rolling. A clear space over the stern is obtained by folding back the after overhang of the shade top, which is hinged at the sternmost carline. Electrically operated mechanism performs the labor of raising or lowering it. All that one has to do is to close the switch. With the open space overhead, there is nothing above the bulwarks to obstruct the free play of the fishing rods. Thus again the object of making deck space serve a dual purpose is accomplished, and the conversion is effected without human labor.

For the handling of the anchor no appliance could be found on the market to suit the requirements that the anchor should be let go or hauled in without anyone having to go forward. A wildcat helps, but with it the chain eventually kinks and, moreover, the anchor does not drop, but is paid out by the motor. The stockless anchor has, of course, won its way to favor because it is securely stowed when the shank is hauled up into the hawse pipe. This feature makes a simple hoisting job after the cable is straight up and down and the anchor free. What has been done on the *Fan Kwai* has been to lead the cable from the hawse pipe over a sheave in the deck, down to a sheave seated on a spring frame at the bottom of the cable locker, and then up again to the drum of the anchor hoist slung under the deck. The drum is fitted with brakes.

When a good fishing hole is found, the anchor can be dropped at once by closing a switch on the main switchboard, thus freeing the brakes on the anchor hoist and letting the cable run out till the switch is opened. Over a fishing hole a boat rides always to a short cable. In rough water the snatching of the boat at the cable is taken up by the spring under the lower sheave. To weigh anchor the switch is reversed, and the drum winds in the cable until the anchor comes right home, a limit switch preventing any overwinding. An electric mooring windlass is also fitted.

Many of the labor-saving and space-economizing features of the *Fan Kwai* cannot be illustrated effectively by still pictures. Most of the contrivances could be shown

The after end of the cabin roof is raised automatically when fishing and the two dories are lifted out of water and stowed on the cabin top by an electric device, without the use of man-power.

well only by movies. The operation of the arrangement for elevating and lowering the piano explains itself fairly clearly in the illustrations given. Closing a switch completes the entire automatic operation of opening the hatch, bringing the piano out and closing the hatch again when the piano is upright on deck, or vice versa. The hold compartment for it is a steel watertight space, perfectly protected from the bilge.

Operation of the boat handling apparatus is also fairly well shown by the pictures. Two dories are carried on the shade top abaft the bridge. Each rests bottom up and is securely held on a light but rigid steel frame locked flat on the shade top. When a boat is to be lowered, its frame, which is hinged on the outboard side, unlocks itself, lifts with the same motion as the hinged lid of a box, passing through the vertical, then over to a position extending straight outboard, the boat consequently arriving keel down, so that it can lower itself by falls into the water. From start to finish, the whole operation is automatic, except that the fall hooks have to be unfastened by hand. When a boat is to be taken out of the water there is nothing more to be done than to hook the falls to the dory's keel, step aboard the *Fan Kwai* and close the switch. Automatically, the boat is then hoisted to the steel frame and swung over inboard, bottom up and fast to the frame, which in turn is automatically locked in place.

To the galley the owner has given as much thought as to any other part of the boat, for he will make much use of it himself. There being no chef aboard, Colonel Rogers and his friends cook their own meals. Hence the selection of the galley for the location of the radio apparatus, consisting of a radio-telephone transmitter and receiver operating on a wave length of 109 meters, and a broadcasting receiver. Right from the galley the owner can talk with his home or with any other short wave station, or, alternatively, can tune in on broadcast programs.

The cooking equipment brought about the development of a compact, electrically operated apparatus for manufacturing a natural gas similar in composition to the gas piped from oil wells. For cooking, a standard house-type, smooth-top gas range was installed, with two baking ovens below and two broiling ovens above, in addition to the ring burners. There is, in addition, a small rotisserie with a capacity of, say, eight broilers. The big advantage of this gas cooking is, of course, that the height of flame at the burners can be controlled and the amount of heat thus regulated. An automatic gas-type water heater is installed to provide constant hot water service in the galley and at the wash basins, one of which is on deck where it is normally folded out of sight. When all burners are in use quite a large quantity of gas is consumed.

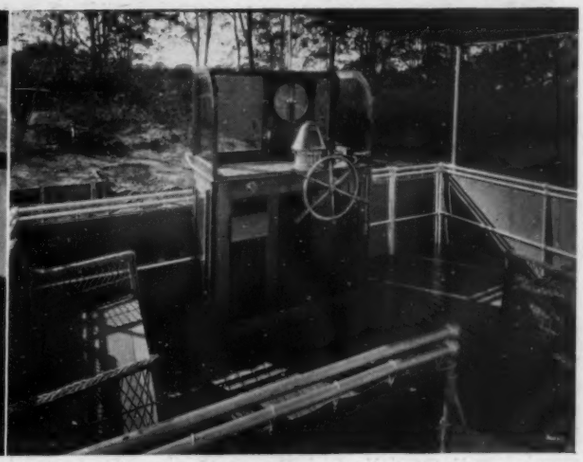
To supply this gas an apparatus has been developed to furnish up to 600 cubic feet per hour. It consists, essentially, of a tank of about 10 cubic feet capacity containing gas oil, such as gas companies use for enriching coal gas. Air is pumped through the gas oil by an electrically driven blower of small capacity and is forced to pass through cloth screens and baffles that gradually load it with particles of oil, forming a gas which is piped to the galley. The gas-making apparatus is housed in a tight compartment alongside the piano compartment under the main deck. Full precautions are taken against leakage, and to eliminate the fire peril an individual Lux CO_2 fire extinguishing service protects it. Another Lux installation protects the galley. A third installation protects the various hold compartments against the hazard of leaks that might develop unnoticed from the engine fuel tanks. With this gas supply a meal can be cooked for 25 people, the hot water service maintained and the iceboxes chilled, both the iceboxes — one on deck and the other in the galley — being of the Servel gas-operated type.

In addition to the electric motor operating the rotisserie mechanism there are two electric motors for turning the spits in the broiling ovens, an electric motor for the "kitchenaid" which does all the stirring, beating, whipping, mixing, etc., and two motors driving the extractor fans in the exhaust vents to keep the galley cool. The question may occur here as to why electric cooking was not adopted. The sole reason was that it would have entailed an electrical load of 12 kilowatts, requiring an engine kept running continuously while there was any cooking, and that would have conflicted with the owner's desire to shut down all engines at every opportunity in order to escape from noise.

For the propulsion of the boat any form of power could have been installed without detriment to the many novel electric devices aboard. Electric propulsion was not essential, but it was adopted because of its preponderant benefits in: (1) smoothness of operation, (2) quietness, (3) ease of reversing, (4) improved propeller efficiency, (5) full power in reverse, (6) adaptability to remote control from several stations on the boat, and (7) complete flexibility of control. No other type of drive can match those benefits. One should read the enumeration slowly to appreciate its significance.

A triple-screw arrangement was chosen because it affords greater convenience for this installation. Compared with twin-screw machinery, each engine of the triple-screw arrangement, being smaller, requires less

The deck can be completely enclosed by glass, or opened to the breezes merely by throwing an electric switch.



The steering stand on top of the cabin house, with control levers for propelling units.

clearance in the under-deck engine compartment and makes less noise and vibration. The wing engines are virtually the main engines, the center engine being available for turning up to full power with the wing engines when a little extra speed is required or for propelling the boat alone at very slow speed, but having also as one of its functions the furnishing of power for charging the battery and for the operation of the gyro stabilizer — a total maximum demand of no more than 18 kilowatts.

To get the desired 375 shaft horsepower within the limitations of weight and space was not easy. The development of electric drive for marine propulsion had hitherto been confined largely to the domain of naval and commercial craft. It had never trenched into the field of light, high speed work. Here was a case where the weight limit of the propelling machinery was considered to be about 40 lbs. per s.h.p. If that were seriously exceeded the displacement would be increased and the speed diminished, with consequent alterations entailed by increased machinery dimensions.

Out of this quandary a way was found with the aid of an electric transmission system, known as the Fraser system, originally designed for automotive applications and latterly under trial in motor trucks and gasoline railroad cars. It had not reached the marketing stage, but favorable opinions were expressed about it by several engineers whom Colonel Rogers consulted and he felt justified therefore in adopting it for the *Fan Kwai*. The principle of its operation is the same as that of the standard electric drive now favored for marine propulsion, but, to attain a considerable reduction of weight, the arrangement of generator and motor is novel, and their physical design is radically changed though electrically unaltered. It is installed as a unit on the engine and propeller shafting in place of clutch and reverse gear.

The electrically equipped galley, showing (right) radio telephone transmitter and receiver.

In the *Fan Kwai* the Fraser transmission units, which are rated at 125 shaft horsepower, are direct connected to Hall-Scott engines of 175 b.h.p. at 1,800 r.p.m. Tests of the first Fraser unit built for Colonel Rogers' boat showed a transmission efficiency above 80 per cent for the range between one-third power and full power. Thus the gas engines provide full power for the units without themselves being fully loaded and, therefore, without laboring.

The Fraser units of the *Fan Kwai* weigh only 1,500 lbs. each. A Hall-Scott motor of 175 b.h.p. weighs about 2,800 lbs. Complete, the weight of each combined power and transmission set is about 4,300 lbs., which is not very much in excess of a Hall-Scott engine with reduction gear for marine service, plus the weight of clutch and reverse gear. It is equivalent to only 35 lbs. per shaft horsepower, which is well within the prescribed limit for the *Fan Kwai*.

The total weight of the 375 s.h.p. machinery and transmission, as assembled on the test block, is around 13,000 lbs., or only six tons. The Fraser electric transmission units are thus seen to be naturally suited to gasoline yachts in which the same problem of light weight arises as that encountered in the automotive field. They usurp no place yet occupied by electric drive, but extend the scope of electric transmission to a new domain — the domain of light, high speed marine work.

In its marine application the function of the Fraser unit can be broadened. Instead of being merely an electric transmission unit it can serve also to provide power for auxiliary purposes, and therefore in respect to what may be called versatility it is comparable with the standard form of electric drive. This versatility is exemplified in the first proposal made for the *Fan Kwai's* propelling equipment.

The late Mr. Hussey, naval architect at the Greenport Basin and Construction Co., assisted Mr. Fraser in working out an arrangement for operating the triple screws with one, two and three generators successively as the speed of the boat was increased. The propeller speed was to be one-sixth of the aggregate speed of the generators. For instance, with only the center engine turning at 600

(*Continued on page 92*)

The Cruise of the *Bimesa*

From Mount Desert Island, Maine, to Toledo, Ohio

By MILTON KNIGHT

Heading into the setting sun on Lake Erie, with home in sight.

WHEN we mentioned to our first skipper that it was definitely decided to take the *Bimesa* around to Lake Erie by way of Nova Scotia and the St. Lawrence, he frowned, shook his head, and the next morning announced that he would be leaving as soon as we arrived at our destination, Northeast Harbor, Me. Yet he is hardly to be blamed for not caring to undertake such a long cruise with only one experienced sailor aboard, the rest of us being all in various stages of "greenness," at least as far as salt water sailing was concerned.

The vessel which was to carry us this distance of some 1,700 miles had been constructed in the yards of Gowdy & Stevens, of East Boothbay, Me., early in the spring. She was from the board of John Alden and seemed just to meet the requirements of Great Lakes cruising, for which we intended to use her. Following a great deal the well-known *Malabar* design she could be counted on as both fast and seaworthy. With an extreme beam of 12 feet 6 inches, there was certainly plenty of room below, and her cabin layout could scarcely have been bettered. Over all she measured 43 feet and on the water line 33 feet 3 inches. There was the added feature of a 4½-foot draft only, which could be increased when beating to windward to 7½ feet by dropping a well hidden centerboard. Two thousand pounds of inside ballast and 8,200 pounds of keel would render her virtually non-capsizable. Her total sail area, not counting a combination balloon jib and spinnaker, and a fisherman's staysail, was approximately 1,040 square feet.

Bimesa was a centerboard schooner. She proved unusually able on the long voyage of some 1700 miles.

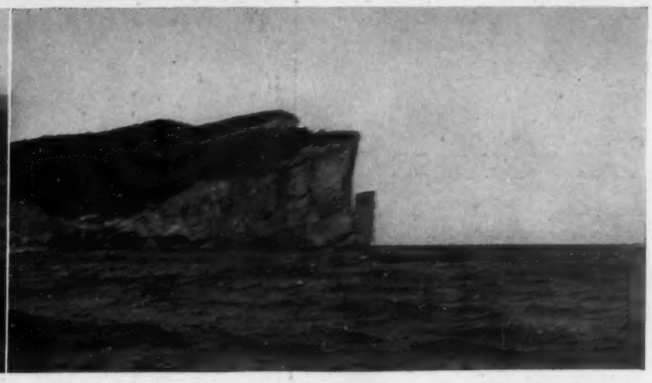
To return to the main narrative, however. We finally came to anchor in Northeast Harbor, after an uneventful run from New London. Here we looked around for a navigator to replace our deserting skipper, and eventually signed on a fine man by the name of Captain Teel, a thoroughly capable navigator and, above all, a most congenial companion for a long cruise. After some overhauling, careful planning and provisioning, we at last felt ourselves in commission to set sail.

The fateful day slowly crept up and on August 6th at 1:30 P.M., we set all lower sail, beat laboriously out of the harbor and were soon standing away on a S.E. by E.½E. course with a fair S.W. wind on our beam. We had taken our bearings for Cape Sable on the southwestern point of Nova Scotia, a distance of 100 miles, and hoped to make a landfall by dawn.

Although there were sleeping accommodations for only six, the party consisted of eight people for the first week, the solution being that at night there would be only six of the crew dormant while two were on watch. In this way we were all enabled to get plenty of sleep and maintain a happy disposition by having only three hours "on" during the night, and three hours during the day. Since this time was split between two of the crew, the system worked out very well.

Aside from "Cap'n Teel," our motley crew consisted of W. W. Knight, W. W. Knight, Jr., Dr. L. C. Grosh, L. C. Grosh, Jr., and the author, all of Toledo, Ohio, and J. Roby, Jr., of Rochester. The latter was our one seasoned sailor, he having gone "across the pond" on *Primrose IV* and having had the interesting experience of being one of the crew of this able schooner in the Fastnet Race of 1926. Our first night out from Northeast Harbor passed without incident except that we seemed to be too close to the lights of the Maine coast which flashed brilliantly to port. Gradually we dropped them below the starlit horizon,

Slow headway against wind and tide on the lower St. Lawrence River.



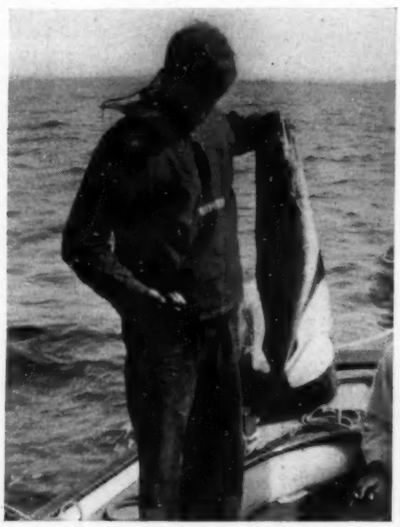
The fog lifting and showing Bonaventure Island, in the Gulf of St. Lawrence.

and considered the clarity of the night as a reasonable explanation of their brightness. At dawn we made the landfall as expected, but were unable to locate our position accurately. Instead of the point of land known as Cape Sable, there stretched out to the horizon a continuous coastline of rugged, forbidding rocks, and we realized that somehow or other we were far to the north of our course. This assumption was verified when, rowing ashore to a nearby lighthouse, we ascertained that we were directly off Cape St. Mary's, fully 35 miles from Cape Sable.

For some this navigation might need some explanation, but not for those who know their Bay of Fundy. This bay contains what is probably the worst waters for accurate navigation in the world. When one realizes that the tide rises and falls 60 feet at the northern end of the bay, it is not so difficult to figure the strength of the tidal currents at the mouth. Our mistake, however, was a result of faulty information. We had been assured at Northeast Harbor that two floods are equivalent to one ebb, but as we discovered later, the ratio was exactly the reverse. In thus making allowance for the trend of the tide we had steered almost half a point to the north of our true course, and this allowance, coupled with the strong flood current, had carried us well into the bay.

Since the weather looked threatening, we decided to make the run of 15 miles to Yarmouth, N. S., and from there take an inside cut-off known as Barrington Passage, thus saving more than 30 miles around Cape Sable. The wisdom of this decision was apparent when, coming in sight of Yarmouth Harbor, we began to be enveloped in a rapidly thickening fog that was blowing in from the N.W. Under these conditions it was all we could do to make an anchorage in the harbor, but finally succeeded, and with everything snug prepared to take a dose of damp, rotten weather. With the usual tenacity of Bay of Fundy fogs, this one held on, "thicker 'n pea soup," and kept us in Yarmouth until August 9th.

With a clear sky and a strengthening S.W. breeze the *Bimesa* cleared the harbor on the morning of this day at 5:30 A.M. and under full sail headed for Barrington Passage. By 8:30 we had traversed this cut-off and taking our departure from its eastern entrance, we set our course E. by N. for Halifax. The wind still favored us and we averaged a little better than six knots most of this day.



Bill catches our dinner on the Nova Scotian coast.

The night was divided into watches, as usual, and passed with little excitement. At 11 P.M. the breeze, which had held admirably all day, slackened, and for the first time we were forced to call on the power of the little Scripps-4. We ran along leisurely at half speed until 3 A.M. when an offshore breeze came up to take the place of the engine.

The watch from 4 until 8 reported picking up Cape Sambro light some two points off the port bow and dawn found us just rounding this cape into Halifax. Here we docked at a fish wharf and, to the odor of dried herring, and barrels of rotting cod livers, the crew made a heroic attempt to take on supplies in as short a time as possible.

The atmospheric conditions made mutiny imminent, as many hours were spent in locating a pilot for the tricky water near Canso, N. S. Finally, however, we were able to get under way at 1 P.M., and with another favoring breeze we set our course due east for the northern tip of Nova Scotia where there is another cut-off known as the "Gut of Canso."

Toward evening the wind slackened and then shifted practically dead astern. We did not want to use our power if we could avoid it, so winging out our main and foresail we gained additional speed by setting our spinnaker. This held us at a reasonable average until midnight, when the weather grew calm and necessitated the turning on of the motor.

The next day we headed in for Canso Harbor. Our stay was uneventful, as could be foretold easily enough. A week crept slowly onward while the crew attempted in various ways to steer clear of monotony. We shifted ballast since the *Bimesa* appeared a bit down by the head. We also made a show of painting the cabin and deck, but soot and filth from the wharf soon put an end to our hopes for a clean ship.

Dr. Grosh and W. W. Knight, Sr., had received their walking papers the afternoon of our arrival in Canso and, as the hours dragged slowly by, I think that more than one of the remaining "squareheads" felt a pang of envy at their luck in departing so opportunely. Yet there was one bright side to our stay here and that consisted of a round roly ball of soft fur, known to the initiated as "Bees." He was a three weeks' old "husky" puppy that the crew had presented to me. His antics and troublesome curiosity did much to relieve several taut moments,

although he was the curse of the boat for weeks after, because of a few friends he brought on board in his fuzzy coat, members of the flea family but afflicted, it seemed, with elephantiasis.

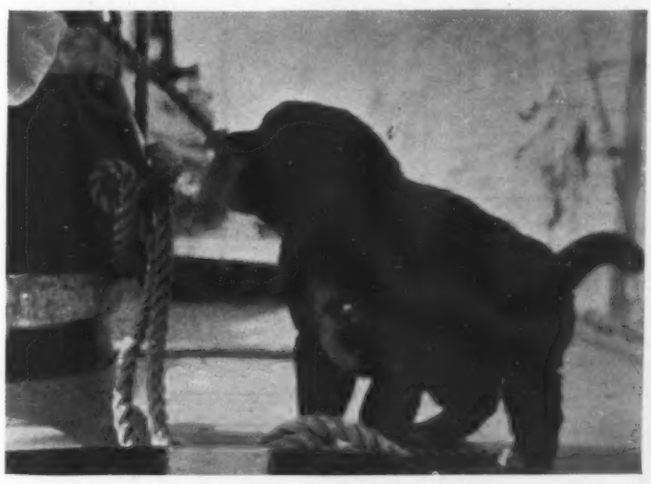
Finally we picked a favoring breeze and on August 19th sailed out of the "God-forsaken harbor" for Mulgrave, where we had arranged to have the express company hold a new generator we had ordered to take the place of one that had gone bad. Mulgrave was the nearest railroad station and is situated in the middle of the 14-mile natural canal known as the Gut of Canso.

Coming to anchor about 4:30 P.M., we sent a shore party to find if the generator had arrived. They returned beaming, with a large box from the Scripps Motor Company, wherein reposed all our hopes. As acting engineer, I connected this new generator to the engine and turned the latter over. The ammeter registered a charge of twelve. Eager to be under way again, we ran in to the government wharf to take on water and gas. This accomplished we started the engine preparatory to heading out of the harbor when, lo, our ammeter failed to register! Of course I bore the brunt of most of the abuse for poor connective ability, but, as future events proved, it was faulty construction, not the engineer's lack of electrical training.

In view of this catastrophe we decided to lie over in Mulgrave for the night, planning an early start in the morning. At daylight we got under way again to the tune of a dead calm, a head tide and a half-charged battery. The entire day, since we had not a breath of air, was one constant wrestle with the generator. By keeping the armature and commutator continually free from any resemblance of dirt it would create a charge that was just great enough to balance the engine's drain on the battery.

We laid our course inside Prince Edward's Island, N.W.¼W., and were lucky enough to have a S.E. wind come in during the evening, to last until morning. Probably we would have made better time that night if the breeze had restrained itself to some extent. It soon kicked up a following sea, and, running "wing and wing" before it, there was great difficulty in keeping from jibing. At 3 A.M. things became so bad that we called all hands and took off the mainsail, running thereafter under foresail alone very comfortably.

In the morning we established our position as abeam of Cape Egmont, whence we changed our course to N.W. by W. with Richibucto for our destination. It was absolutely necessary to make some port soon because we were practically out of gasoline. Also we had been told of a good electrician in one of the local garages there and we were



The "husky" pup knew his ropes.

Natives of Fox River came over trying to buy *du contreband*, or "wheeskey."

desirous of getting our generator fixed up if possible, as well as recharging the battery.

Anchoring at 6 P.M. in Richibucto we immediately set out to discover our mechanic, but our bad luck held and we could locate neither the man nor a place to recharge the battery. A fair breeze in the morning, however, soon dispelled our disappointment, and setting our course direct for the Gaspe Peninsula we were able to average 6 knots until 3 in the afternoon, and 5 knots from then on until dawn.

Since there were but five of the crew left on board, the night was split up into five two-hour watches. This was the first time one man had held a lone vigil at night and it certainly was "lone." The S.W. breeze had kicked up another following sea during the day, and now, with our course N.E.½N., the same difficulty to prevent jibing was encountered in these short choppy seas.

Morning found us almost across Chaleur Bay, but since a light fog had blown up from some point we were unable to make a landfall. We spoke to some cod fishermen in a small dory, but they did not seem to understand English. Then, in our best American-taught French, we asked the direction of Bonaventure Island. After some difficulty we gathered we were "cinq kilometres" off our course, so altered the latter to clear Bonaventure Island at noon.

The barometer had been dropping rapidly for the past 36 hours. This was no little cause for worry, so we turned on the motor and headed for Gaspe Harbor, 14 miles away. An extract from the log will show how close we missed the gale that hit this part of the coast and wrecked three fishing schooners with all hands.

"1:00 P.M. Bar: 29.9. Weather: hazy. Course: N.N.E. ½E. Wind: S.W.

"Cape Verte about 2 points off port bow. Breeze freshening continually. Carrying about all the canvas we can! Are seven miles from Bonaventure Island with seven more miles to Gaspe Bay. Sighted school of blackfish after herring at 12:30. They made quite a sight charging through and over the seas.

"2:00 P.M. Bar: 29.8. Weather: hazy. Course: N.N.W. ½W. Wind: S.W.

"Just rounding point into Gaspe Bay. Wind blowing pretty close to a gale. Took in mainsail at 1:30. Running at average of 6½ knots under jumbo and foresail alone. Are very comfortable, but it is lucky we are not bucking head into this sea. Passed about fifteen fishing smacks making a race for shelter. They are queer little double-enders carrying three short spars, each with a small gaff

(*Continued on page 94*)

A Singapore Bang Choon under a single sail.

Hanging on to one end of the net.

The Bang Choon

A Fishing Boat Commonly Used on the Island of Singapore

By William Maxwell Blake

THE Bang Choon (net boat) depicted here is a type of fishing boat much used on the Island of Singapore. Wherever a stretch of sandy beach is found these boats may be seen busy with their seine nets, night and day. This particular boat is owned by a Hylam (a Hylam is a Chinese from the Island of Hainan), Ah Peng by name, originally hailing from Haikow but now permanently settled in the more salubrious surroundings of Tanjong Rhu, Singapore. She was built by Teochews (Chinese from the neighborhood of Swatow) at Pasir Panjang for $130 Straits currency (about $85 gold). Her dimensions are, 37′ 3″ x 4′ 9″ x 2′ molded depth.

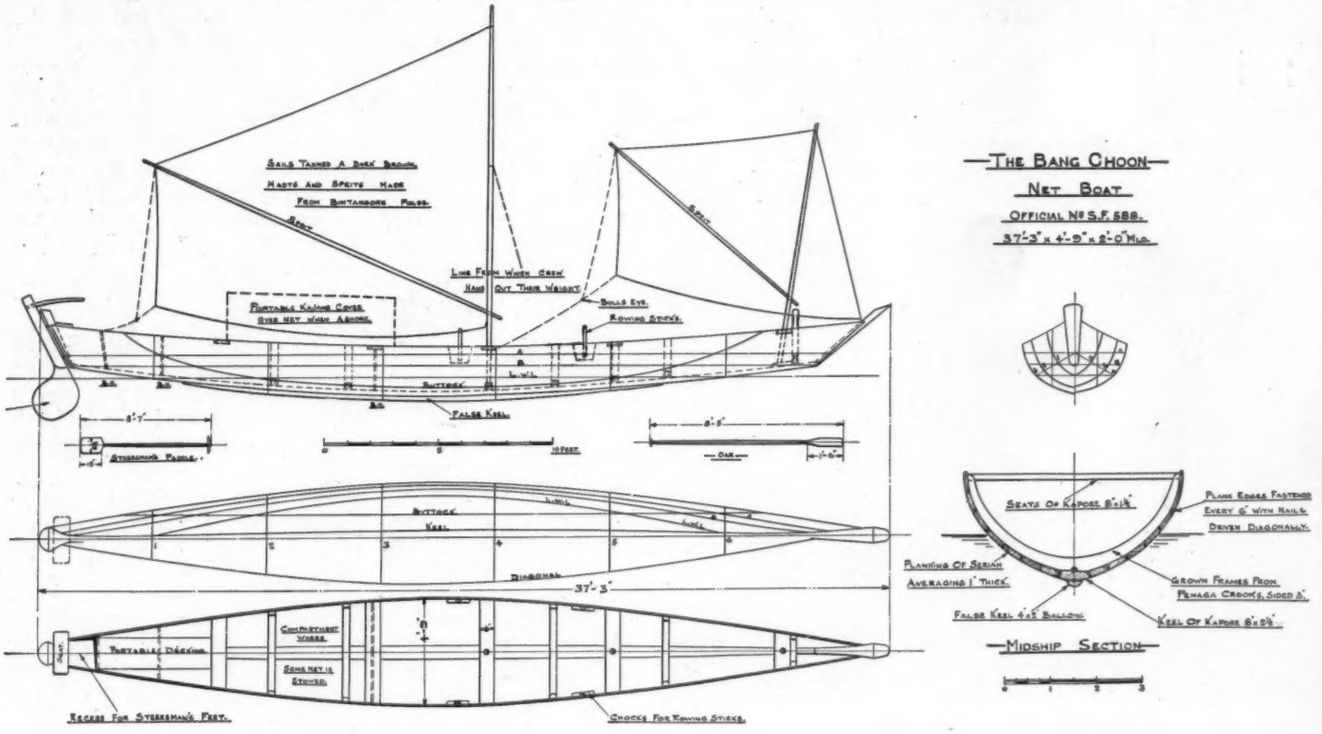
The seine used is 240 fathoms in length with a mesh of one inch, decreasing to half an inch at the cod end in the center of the net. The hauling ropes are made of twisted rattans, which are light, float on the surface of the water and are easily coiled down. Such a net costs $300 (Straits) and is tanned black.

At a suitable state of tide three men stand in the water holding the end of one rattan line while the boat rows out across the run of tide. When the length of line is out the steersman describes a semi-circle while the net is paid out overboard, the cod end being defined by a float of light wood on a line. The other rattan line is then taken ashore and the rowers man the end while the steersman hauls the boat out to the cod float on to which he hangs to watch if the net should foul the bottom.

Very often heavy catches are made. If a shark should be enclosed the excitement is great, as not only is there danger of damage to the net, but if eventually secured such a catch means $50 at the market. Profits are shared, and with fish always in demand, a good living is made the year round. The Teochews, another clan of Chinese, do not fish at a permanent base but roam further afield and net any likely beach or cove. They travel long distances with six rowers and a Taikong (captain). If the wind is fair they set sails of unique shape.

The construction of the boat is very simple and the shape is hard to beat for the work intended. With the

(*Continued on page 90*)



A Cruising Man's Conclusions on the Staysail Rig

Some Thoughts Called Forth from Sailing on the "Niña" in the Fastnet Race

By WARWICK M. TOMPKINS

HE sea is a great teacher. Wiser than Solomon himself would be that man making his ten-thousandth voyage who could not be taught something new about it. And there is no greater fool than one who pretends he can learn nothing more about the sea or the sh ps that sail upon it. Most sailors know this. Yet, through faith in that which is familiar, they cling stubbornly to their own particular set of convictions and few ever get an opportunity to test out the other fellow's ideas. Thus there are "racing men" and "cruising men," and exceedingly few are those who are members of both categories.

Because, once aboard a boat, I have an irresistible desire to see the last blue headland fade away, I am a cruising man. Barring two awful afternoons when I blundered around on small racing craft I have never set foot on a real, highly-strung racing craft. Or, rather, I had not until I boarded Paul Hammond's *Niña* at Cowes an hour and a half before the last Fastnet Race. I had the cruising man's distrust of Marconi masts for anything but sheltered waters. It was a distrust based on theoretical knowledge, and I knew, as I gazed up fearfully at the great mainmast of *Niña*, that at last I was going to learn something of this rig at first hand — probably a lot. I did not guess to what extent my o d views would be altered in five short days of ocean racing!

With the race over and won, I find most of my preconceived notions altered. Not, strangely enough, because I think now that they were baseless, but because I have come to a new attitude toward yacht racing. And in this attitude, I think, lies the true eradicator of the enmity that sometimes arises in debates between the two "schools" of sailing men.

It irritated me once to think that a New York "Forty," re-rigged as a yawl, should win the Bermuda Race. I was quite in favor of Ocean Racing Club officials levying a terrific handicap against Colonel Baxendale's Twelve-metre boat *Hallowe'en* or the *Noreen*. These are racing machines, not ocean-going ships, I argued many times, and the object of these ocean races is to produce seaworthy, husky boats. Therein lies the mistake most of us who prefer to sail "off soundings" make. The object of a race — any kind of a race — is just exactly *not* that. It is to get from A to Z in the quickest possible time under sail! The word "Race" has as corollaries, Risks and Hardships!

Where do our cruising craft, the accepted, go-anywhere, stay-out-in-anything-boats, come from? From racing? No sir! They are developed in arduous pilot service, in trawling fleets, on the Grand Banks. In any school it is the same. Rowing has developed the varsity "eight" — and a more unseaworthy craft cannot be imagined. The so-called "sport of kings" produces the nervous thoroughbred, while the working demands of the world made the Clydesdale and the Normandy horses.

Let the race, then, belong to the swift! It should. But let me here put down briefly my reactions to the staysail rig from the viewpoint of the cruising man.

Just as I think that *Niña's* rig makes her the finest ocean racing craft that I have ever seen, I feel sure that she has one of the poorest cruising rigs I have known. And next year, if the usual weather conditions prevail during that race to Ireland, I would much prefer being aboard *Jolie Brise*, say, than *Niña*. I think *Jolie Brise* would win. What would happen to *Niña*, with her great amount of outside ballast and her terrific mainmast, no one knows for certain because that rig has never had the ultimate test of downright rotten weather.

I have frequently heard it said that the staysail rig is easier to handle than the gaff-headed. This is not true. It took five men to put *Niña* about under perfect sailing conditions — daytime, smooth sea, light breezes. Where is the conventional schooner that the man at the wheel cannot tack by himself in such conditions? What big Thames barge requires five good hands to come about? And how do the four-masted coasting schooners of America manage with only five or six hands in their personnel?

This, perhaps, is one of the most serious indictments of the rig if one is contemplating a pleasure cruise. One must have a big crew, to begin with, and the individuals composing it must be at home amid the bewildering maze of backstays, preventers, sheets, and halliards that the staysail rig requires. Where, on a few days' notice, or a few months', will your cruising man possessed of another *Niña* get shipmates? It is a cruising axiom that down to a certain point, the smaller the crew the better. There will be less disagreement about where to go and how long to stay, fewer expenses, less crowding. *Niña* can carry no idlers. She will never find better weather than we had in the Fastnet Race this year, and yet the eleven hands on board were none too many.

Granting, for the sake of this discussion, however, that the crew difficulty can be overcome, what other shortcomings does the cruising man see in the staysail rig?

First of all, he notes that the very life of the ship is always in the integrity of a set of weather preventers — the main-topmast backstay and the main runner. And the more he contemplates those thrumming wires and the tremendous spar they primarily support, the more he dislikes the idea of going to sea with them. Those essential stays are subject to a number of dangers. An all-standing jibe, for example, would carry them both away or, failing that, bring down the mast on one's head — all of which amounts to the same thing. Whether or not the foremast went by the board — as it very possibly would if either the breaking strain on the mainmast was transmitted to it through the spring stay or it collapsed when relieved of that stay's support — the ship would be sadly, if not completely, crippled. Not only would you have lost your mainsail but your various "Advance" staysails and your lofty "Queen" staysail — in fact, all of those efficient sails set between the main and the foremast would be put out of commission. At best, you would have a jib and a fore-staysail; at worst, nothing at all left.

That is not a pleasant thought to contemplate under any circumstances, especially when the ship may be a thousand miles from a shipyard. How can this situation be circumvented? Some will say at once "by permanent backstays." Not on a schooner like *Niña*. She needs every inch of her mainboom. Cutting it down, as would have to be done to rig permanent stays — and it would mean a big cut any way you look at it — would make *Niña* a lame duck before the wind. On that little 12-mile run down the Solent last August there were four or five boats, notably Dudley Wolfe's *Mohawk*, which out-footed *Niña*

down wind. I was told that during the race to Spain *Mohawk* and the *Pinta* were, at one stage, over a hundred miles ahead of the staysail schooner. That was before the easterlies came to help *Niña*.

So no cruising man, especially one who dreams of weeks on end before the Trades, say, would further reduce the already inferior running qualities of a staysail schooner by shortening her boom. I think there is no way to do away with these stays in which, to my mind, lies the second greatest drawback to the staysail rig for cruising purposes. They must be carried, and with them go the risk of faulty wire, the risk of a splice pulling out, the dangers of a breaking block or the parting of the hauling part of the tackles.

Boom guys will not entirely eradicate the peril of a jibe, as Sherman Hoyt said when we were running in at ten knots through the dark from the Lizard to Plymouth, with the wind almost dead astern, and I — at the wheel and very uneasy — hinted that I'd like those guys set. "They wouldn't stop a jibe in this wind," was his comforting remark as a sea chuckled under the counter and threw our bow off a half point until the boom lifted. It would have been pleasant to be dismasted five miles from the finish line with the race practically won, wouldn't it?

The mainmast of a staysail schooner is not one that your cruising man would find a comforting shipmate. *Niña's* spar is hollow, of course, rectangularly shaped, with rounded corners, a truly beautiful stick. But it is difficult of replacement and is subject to strains that make one shudder.

It has been my misfortune, as a cruising man, to have to go twice in search of new spars for a dismasted ship. In *Primrose IV*, that summer we went home by way of Iceland and Labrador, we could have landed anywhere on the North American Continent and replaced either of our masts, should they have gone. In only half a dozen ports of the world could a spar like *Niña's* be fabricated.

And masts do go, now and then. I'll have to beg to disagree with Skipper Hoyt about the probable relative damage caused by the parting of one of *Niña's* shrouds or stays and one of those on an old-fashioned gaff-headed rig. The Skipper said *Niña's* mast would come through in better shape than would *Primrose's* stick.

I cannot believe that — not after seeing half a dozen Marconi masts snap when stays let go during Solent and Long Island Sound regattas. I cannot believe it after having seen gaff-headed masts stand despite the loss of a shroud or a stay. In the course of time we will accumulate experimental data on this question. Now, I believe, it is a matter of almost pure speculation or prejudice, and like other cruising men I am waiting to see a staysail schooner encounter the sort of weather and the sort of strains that the gaff-headed ships have survived.

A concluding "kick" I have against the Bermuda mast — I am convinced that slides can be made husky enough and tracks fastened securely enough to hold a sail — is that there is no way to get aloft on it except by a bo's'un's chair. I think of the many times I have had to go aloft — to make a landfall, to see over a fog that shrouded a steamer, to replace chafing gear, to inspect halliards and strops — and I vote for shrouds on the cruiser that can carry good ratlines. Then you can lose a topmast and get up to fix a jury rig. If *Niña* had lost three feet of her mainmast it would have been impossible to make any repairs aloft whatsoever, until perfect calm came to let a man swarm up the stick monkey-fashion. This is another fault that cannot be laughed off.

Finally, for the cruiser, comes the matter of expense. *Niña* stretched two $700 mainsails out of usefulness in her first short, glorious season. Her balloon jib, her various staysails, and a number of other sails with which I am not familiar enough to call by name, will have to be replaced. And this in three months of ocean sailing! I don't know just what shape her standing and running gear is in. Sherman Hoyt said — and he should know — that she will need new running rigging every season and new standing stuff every two years.

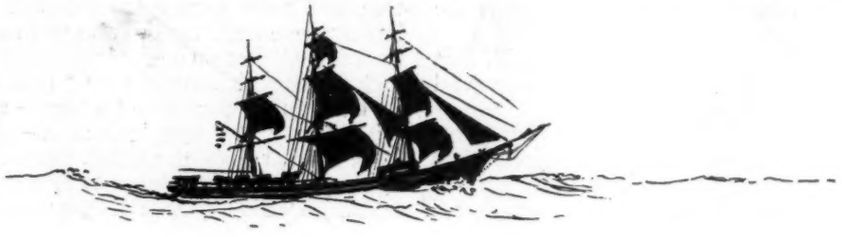
Against such expenses as this it is almost futile to compute the little saving obtained by such items as the fact that you have but one halliard to each working lower sail, and a dozen less blocks. With every sail and every running stay set up by powerful little deck winches, the wear and tear on every bit of gear is bound to be enormous. Sails stretch, stays stretch, blocks wear out, and it all mounts into heavy expense — something that few cruising men can afford.

We who prefer deep waters can study *Niña's* hull and the way it cleaves the water to advantage. She contradicts the adage that a fast boat is necessarily a wet boat. She sails on her bottom and, with the rail awash, seldom goes farther down. A hull that does that is a fine cruising hull. She knifes along easily, smoothly, with no semblance of pounding. She creates less wave resistance than any boat I have ever seen, and that means that she glides magically in the veriest zephyr.

Her windward-working powers have to be seen to be believed. They would not be hurt appreciably by rerigging her as a cutter. As a matter of fact, Major Heckstall-Smith pointed out that *Niña* is really more of a cutter than a schooner, anyway — a cutter with a mainmast set far aft and a vast complication of headsails. In other words, the short foremast is a rudimentary attachment, an atrophied stick without any real justification. How I'd like to see *Niña* as a cutter! And then to match her against Frank Draper's *Flying Cloud*!

The use of winches, I think, is something that cruising men will come to more and more. It is something to be able to handle the mainsheet single-handed, a decided advantage to trim a jib without luffing up and losing way. In my own ship, I shall certainly have them. They will make my sailor-wife the equivalent of a husky man when it comes to setting up a peak or flattening in a headsail.

So, without shaking my opinion that the gaff rig is *the* rig for offshore work, my experience with *Niña* has broadened my appreciation of the field for the staysail rig and given me grounds on which I feel sure that I can debate the relative merits of both rigs. My litt e thesis will undoubtedly provoke responses from dyed-in-the-wool racing men. I they are made in the same spirit in which I offer these criticisms we may all learn something new. Verily, the sea is a great teacher!



THE PEQUOT YACHT CLUB, AT SOUTHPORT, CONNECTICUT.

Few yacht clubs on the Atlantic Coast have a more attractive home than the Pequot Yacht Club. Situated just inside the breakwater at Southport, the attractive brick building commands a fine view of the anchorage and the Sound beyond. Organized only eight years ago, the club has been most active in promoting racing among its members, and among the juniors as well. It has fostered several new classes and built up a large fleet of racing and cruising yachts.

Deep Water Sailing

Part X—The Horse Latitudes and the Gulf Stream

By E. G. MARTIN

JOLIE BRISE ran on day after day making her westing, almost with the regularity of a steamer, until we began to draw near the West Indies, when the Trade wind became less steady and the weather unsettled. When we were about 250 miles east of the West Indies we turned northwards and so began the one stage of the journey which might prove troublesome. However, we made fair progress until we reached 23° N., which brought us into the Horse Latitudes, and thereafter we had much troublesome sailing until we made the Long Island shore. To begin with, there came a northerly wind so strong that we could not sail the ship to windward and had to let her lie-to with her head about northeast. It became a moderate northerly gale and raised a troublesome sea which prevented our making any headway, though it was not bad enough to give us any anxiety. When this was over we fell in with calms, and for the first time, I think, we felt that we had still a long way to go.

The Horse Latitudes extend over an area bounded roughly by the West Indies, the Bermudas, and the Gulf Stream. A ship which crosses the Atlantic by the southern route is bound to pass through them, and the passage is sure to be troublesome in this part. Here, even in fine weather, we found the air very hot and damp, and heavy squalls of rain and wind were frequent. Generally they do not last for long and one can tell with some certainty, after a few days in these waters, how severe a squall will be. They are mostly quite local and one can see blue sky above and upon each side of them, while below, the rain, falling in the shadow of the cloud, looks very dark. But unless the squall is going to be a long one, one sees the light shining through the rain beneath the cloud before it reaches the ship. We used our trysail rig in this weather, and with this small spread of sail we could always run the ship off dead before the wind when the squalls came. Sometimes the wind was very strong for a few minutes, but it passed too quickly to affect the sea to any extent, and it became a regular routine to run off in good time to bring the wind right aft before it became strong and to haul back upon the course again as soon as we could do so in comfort.

By slow degrees we made our way to a position northwest of Bermuda where, if she is lucky, a ship may find the Passage winds. These are moderate breezes from southwest, and bring fine weather. Unfortunately, they failed us, and so we had a troublesome time working our way to the southern edge of the Gulf Stream. After a time our progress under the trysail rig became so slow that I set the big sails and for a time we made much better days' runs.

As we approached the latitude where we expected to enter the Gulf Stream we took the temperature of the water at each change of watch. In Lat. 33° N. the surface temperature was 68° F. Twenty-four hours later in 34° N. the reading was 69°. Twelve hours later it was 72°, and in the next four hours it had risen from 1° to 73°. We were then about 200 miles west of Cape Hatteras and well within the usual limits of the Stream.

Of the waters in which I have sailed, none have given me so great a feeling of uneasiness as the Gulf Stream. No doubt this is partly due to the unpleasant sensation of sailing in hot water; but the Gulf Stream climate seems to be very fickle, and one can never be certain what the weather may be in the course of an hour or two. No doubt the whole balance of the atmosphere is upset locally where a vast stream of hot water flows northwards into a cold sea. Off Cape Hatteras, where the current is very strong, the weather is notoriously bad. We had entered the Stream in fine weather, but as we sailed on squalls began to grow up. At first they were few and scattered, but by degrees the sky, which had been a brilliant blue with here and there a few clouds, became covered with clouds in which only a few rifts of blue remained.

Towards evening the weather seemed so threatening that we got the ship under her trysail rig again, and during the night the wind came in squalls which grew gradually stronger towards sunrise. About 7 A.M. came a tremendously heavy one in which the ship was scarcely manageable as she ran. It lasted much longer than usual, and as soon as it was past we hove her to, double-reefed the trysail and set a storm jib, a mere scrap of canvas very heavily roped. Under this rig we kept her running again for a time, for there was not sail enough to press her and the sea was not yet big enough to be dangerous.

As the day wore on the weather became worse and so we hove-to upon the port tack. We were then somewhere about the middle of the Gulf Stream. During the night the wind eased, but in the morning the sky began to clear and the wind shifted to the northwest. Soon it was blowing a whole gale.

The Gulf Stream in a gale of wind must surely be one of the finest sights in the world. In northern waters there is nothing which can be compared with it, and though the seas may perhaps run as high they are not so steep and, by comparison, sea and sky are almost colorless. Here, there was a blazing sun, a huge sea (for some hours the average height from trough to crest was from about 46 to 50 feet by careful measurement) which was so steep that the breaking crests were out of all proportion to those upon ordinary deep-sea waves, and the colors were extraordinarily vivid. The Gulf Stream water is of the darkest sapphire blue, which seems to have no trace of green in it, such as there is in other parts of the Atlantic. As one approaches the northern limit of the Stream curious patches of brownish-green water appear in the blue, and when one has actually left the Stream and is sailing in the waters which flow south from the Arctic this brownish-green color is very noticeable. It is unlike any other water I have seen and confirms the change of temperature which shows that the Gulf Stream is passed.

Owing, I suppose, to the gale blowing across the current the sea did not behave as it does in the Western Atlantic. In the true long ocean sea the crests of the waves are left. One may watch the broken water sliding down the backs of the waves as they pass, spreading out into crescent-shaped patches of foam. In surf the crest topples forward and the face of the wave is actually hollow near the top. In tide races and in shoaling water waves leap up in pinnacles which collapse with a roar. There is a savagery in the roar of a tide race which is very grim. No ship could survive a gale at sea if the waves were surf-like and hollow-faced, and flung themselves upon her in countless tons of moving water. She could not survive more than a few minutes of such battering. These Gulf Stream waves did not break forward, but they were very steep, and had one broken right alongside I think that a clean sweep would have been made of the bulwarks and everything on deck.

Deck of *Jolie Brise* from aloft, showing long tiller.

Little vessels like pilot boats are wonderfully buoyant, and they seem to look after themselves in a curious way, so that they dodge the heaviest breaking seas and come through unhurt. It is a sort of miracle which I do not understand, for during a gale thousands of waves may pass by them as they lie hove-to and yet never actually catch them unaware. Of course, there is the "chance sea," as the fishermen call it, which comes suddenly and gives a knock-out blow. It is this which the fishermen fear, and which I suppose is at the back of a man's mind as he watches sea after sea sweeping down upon his ship. Once in a while it comes and breaks half way up the mainsail of a deep-sea smack twice the size of *Jolie Brise*. She is thrown upon her beam ends, and whether she rights herself or founders depends upon her hatches and the immovability of her ballast.

Jolie Brise lay to very steadily, apparently just making the least headway through the water, but actually being swept bodily to leeward, for our lee drift during the gale was about 60 miles. When a big sea breaks close upon the weather bow of a small vessel she is carried bodily astern and to leeward. This puts a frightful strain upon the rudder and steering gear, like that upon a door which is forced backwards until the hinges are torn off. But no doubt it is this yielding before the seas which enables a small boat to ride out a gale in safety. The fishermen always say that it is the most weatherly vessels which get the worst punishment when hove-to in a gale. Herein must lie the secret of the fine seaworthiness which experienced yachtsmen sometimes claim for shallow centerboard cruisers.

In *Jolie Brise*, under her double-reefed trysail and storm jib, there was no likelihood of any of the sails or gear giving out, but the rudder gave me much anxiety in this gale. Strong as the steering gear was, every time a sea passed by the rudder would kick until the stout oak tiller bent like a withy. There was not enough give in the tiller lines and so we nursed it by hand, easing it to the shocks, and very wearisome work it was. I believe that any kind of toothed steering gear would have stripped, and doubt whether even a screw gear would have held out, for it is rigid and would have felt every shock to the full. It is the strain put upon the steering gear by the stern drift which is the chief objection to the use of sea anchors. We used oil, but as I noted before, it is doubtful to my mind whether the oil was of much service because the surface drift of the water was quite as great as the lee drift of the ship, or, it may be, even a little greater, and so the oil could not spread to windward of her.

The gale was at its height for about six hours. Towards noon the wind began to moderate and we had lunch quite comfortably. When we were hove-to we never had any difficulty about meals, no matter how rough it might be. With the dropping of the wind the sea for a time became worse, and this I fancy is the case in any gale which does not blow itself out very gradually. A very strong wind tears off the tops of the waves and flattens them out to some extent, as it appears; but when it drops the crests seem to leap higher and the seas are not forced to run so true, so that they become confused and rise up in irregular heaps. This happened now, and for a time the sea looked really dangerous. But the ship lay steadily, and I think we were lucky for we never shipped a drop of water until the evening when I was sailing her along again — perhaps a little too soon — and shipped one big splash over the quarter by my own fault.

The gale had blown us back out of the Gulf Stream, upon its southern side. At 8 o'clock the temperature of the water had dropped from 72° to 68°. So we had to cross the Stream again, and though the weather was fine and the wind moderate we carried on with the trysail rig, for Warneford and I were agreed that the Gulf Stream was not the place for our big canvas. Moreover, we were nearing the end of our long voyage, and the knowledge that we had been lucky enough to escape from all mishap so far made us doubly careful in trying to avoid any trouble on the last lap. We kept the ship on a course a little to the west of north and entered the Stream again that night between 8 P.M. and midnight, for although we sailed only 13 miles in that watch, the temperature of the water rose from 68° to 75°. At 8 next morning it was still 75°, at noon 73°, at 4 P.M. 68°, a fall of 5° in about seven miles. At 8 P.M., after sailing 18 miles, it had fallen one degree to 67°; and during the next watch when we sailed 29 miles it fell rapidly to 52° at midnight. We were definitely in the Arctic current which sweeps along the western shore of North America.

It is most interesting to watch the water and note the changes of temperature during a crossing of the Gulf Stream. As far as color goes, I do not think we could tell when we were leaving the warm water region on the south side and entering the Stream itself, for the water seems

(*Continued on page 102*)

Mother Carey's chickens following *Jolie Brise* on her Atlantic passage.

Part of the fleet of one-design 15-footers racing on Guantanamo Bay, the United States Naval Base in Cuba.

Spartan—A Realization of a Design for Sportsmen of Limited Means

By COMMODORE, GUANTANAMO BAY YACHT CLUB

THE readers of YACHTING will be interested to learn of the successful building and sailing of the 15-foot, one-design sail boat, called by her designer, Arthur Doane, *Spartan*, a description of which, including plans and details, was published in an article in YACHTING for the month of December, 1923.

It appears that the designer must have had in mind a situation similar to that presented at the U. S. Naval Station, Guantanamo Bay, Cuba — a body of water about a mile wide and four miles long with no dangers to navigation, winds of such force and variance as to lend spice to the sport, racing weather every day of the year, and plenty of sailormen eager to sail but with limited means for buying a boat. The detailing of certain officers and men to the Naval Station with former experience in sailing, and keen for the sport, lent impetus to the desire for sailing with craft that would call on the best of skill in rigging and maneuvering, and resulted in the discovery of the aforementioned article. To Lieutenant J. A. Davis, Construction Corps, U. S. Navy, goes the credit for selecting the design and proportioning the class and for superintending the building of the boats.

Bending sails alongside the dock at Guantanamo Bay.

In June, 1927, two boats of this class were built by local carpenters, the total cost, aside from material, being $125 each. The success of this design was so immediately apparent that in August, 1927, eight more of this class were built simultaneously, at a cost of $100 each, except for material, and to date 22 boats have been built. Of these 22 boats, 12 were built for the personnel of the Naval Station, five for vessels of the Scouting Fleet, which bases at Guantanamo Bay for about three months out of each year, and five for the personnel of the U. S. Marine Corps, stationed at Port au Prince, Haiti.

The owners of the boats built for the personnel of the Naval Station met and formed a club to be known as the Guantanamo Bay Yacht Club, those eligible for membership including personnel of the station and of the fleet. The sailing rules of the New York Yacht Club were adopted, and the interpretations of these rules as adopted by the Duxbury Yacht Club, Duxbury, Mass., were also adopted. The commandant of the station was elected commodore of the Club, and Vice Admiral Ashley H. Robertson, U. S. Navy, commander of the Scouting Fleet, was elected honorary commodore.

Races were immediately scheduled and have taken place on each Saturday since, there being four series of races each year, each series consisting of from 13 to 14 races. Trophies have been donated to the club for each of these series.

The yacht club members who had sailed similar boats before naturally had an edge during the first races, but the many races engaged in have taught all boat owners to such an extent that the outcome of any recent race is very much a matter of doubt, and competition is so keen that the winner of a series is usually not decided until the last race and the first four boats are seldom separated by more than a few points.

The boats have lived up to, if not beyond, the expecta-

(*Continued on page 100*)

A Leak in the Bottom Is Worth Two in the Deck, But Why Have Either?

Canvas, Marine Glue, Tacks and Some Paint, All that Are Needed to Make the Cruiser as Tight as the Proverbial Drum

By W. C. Frank

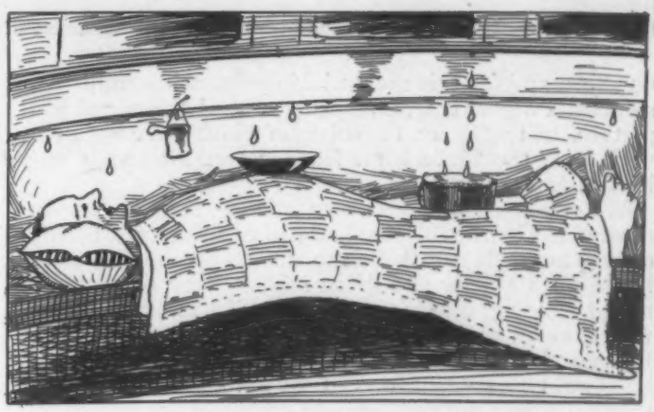
HAVE you ever been to "sea" in one of those old-timers in which the deck has started (some time ago) to part company with the edge of the trunk-house? Have you ever tried to sleep in such a boat on a rainy night? If you have not you have missed one of the great experiences of motor boats — an experience which all of us had to go through before we earned our spurs — or shall we call it anchors — as "cap'ns."

Seriously, though, on many, many boats, just as soon as it starts to rain a little, it is necessary to get out all the dishpans and buckets aboard, just to catch the busy little drops which come in, in the most unexpected places. And just try to find one of those leaks after it stops raining. You may have a nice little faucet pouring its quota of fresh water over the galley stove, yet the actual source of the leak may be some six or eight feet further forward or aft. The water will run in and then travel along the under side of a beam for a long distance until it finally hits a low spot where it will pile up sufficiently to cause drops to form.

The worst of these leaks is that, on shipboard, water seems to behave contrary to all the laws of nature in that it will most certainly blow uphill upon occasion. The edge of a hatch may be perfectly tight under ordinary conditions, when the rain is coming straight down, but there may be a time when spray and rain will mingle together in a heavy breeze and water will be blown in almost anywhere. It will roll up over the edge of a coaming just as easily as though the coaming were not there at all.

Now let us consider Figure 1. Here we see the deck and side of the house of the ordinary trunk cabin boat. At the points A and B you will note that the builder of the boat has placed a nice "welcome" sign of which the water will soon take advantage. You may caulk these places until the side of the boat springs away from the edge of the deck and until the house is set back an inch or more from the inner edge of the deck, but it will still continue to leak upon the slightest provocation. That deck will dry out in hot weather and no matter what you do to it, it will continue to open up every time. During a long spell of wet weather, it is possible that the wood may swell enough to cause it to close up to some extent, but as a general rule leaks will predominate.

In Figure 2 we have improved the construction somewhat. The deck carries out over the edge of the planking in such a way that the water will drain overboard and we have placed a sort of coaming outside the edge of the house which, in theory, at least, should keep some of the water from running inside. If the joint in back of the coaming is made up with plenty of marine glue, or even old paint, it may remain tight for some time, but sooner or later the water is going to seep down the cabin side and work its way through in back of the coaming. A leak like this is almost impossible to find and even when you do find it and succeed in closing it up, it is more than likely that you will open up the coaming at some other point.



"Have you ever tried to sleep on a boat with a leaky deck on a rainy night?"

In Figure 3 we have taken care of the situation permanently. Canvas, properly painted and laid in old paint or marine glue, will not dry out and will remain watertight for a long time. Therefore, we have removed the sheer rubbing strake and the coaming, as indicated in the previous figure. Canvas has been brought up under the edge of the house to a point several inches above the deck. It is then tacked and backed up with "stickum." The entire deck is covered with canvas which is brought out and down over the side, where it is again tacked, and then the rubbing strake is replaced. Water, here, can do only one thing — run overboard where it will do no damage.

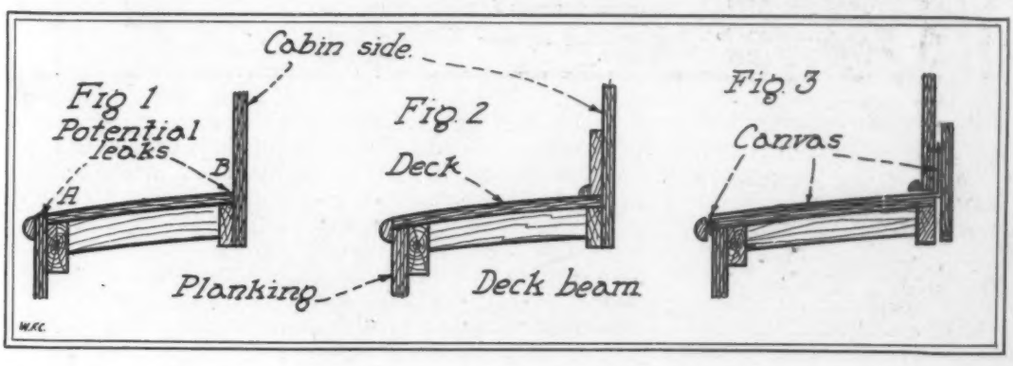
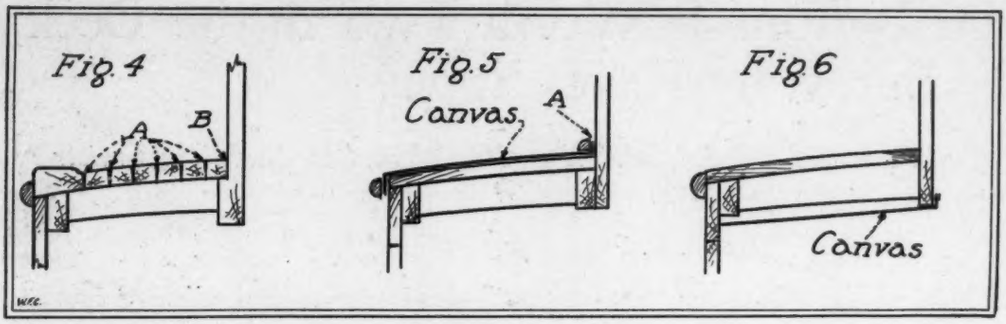
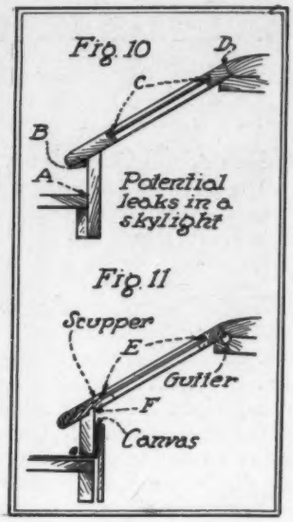


Figure 4 shows the "laid deck," in which watertightness depends upon the caulking and marine glue in the seams. At the points A and B we have potential leaks which may start at any time, especially when the deck is badly dried out. On small boats such decks cannot be made sufficiently heavy to stand proper waterproofing, as is the case





on ships, and for this reason laid decks, aside from their somewhat higher cost, are passing out of the motor boat picture. In this figure, the sill upon which the edge of the deck joins the house is far from watertight and it may leak at any point.

We once owned a boat with a cabin side made as indicated in Figure 5. The builder had covered the deck with canvas and had run this same canvas up the side of the house for a matter of half an inch in back of a quarter round molding. Every time it rained leaks would be certain to occur at A, as the water ran down the side of the house and the small surface of the canvas permitted it to keep right on going. No matter what was placed in that seam, it would not remain tight after a little dry weather and in time we had so much stuffing in there that the house set back a full quarter of an inch from the edge of the deck. We finally wound up by removing all the caulking and other material, getting the house back again and then running in a new piece of canvas which lapped up on the side of the house a full six inches. This was laid in marine glue and the upper edge closely tacked with copper tacks. A half round molding was placed at the top as a further protection and the quarter round went back in place at the corner of the deck and house. It did not look pretty but at least it kept the house dry in all kinds of weather. The overlap of canvas was so large that the water could not work down in back of it.

There are many boats going around with the makeshift shown in Figure 6. The owner, giving up the deck as a bad job, has tackled it from underneath by tacking a piece of painted canvas up under the deck beams. This has just enough drop to it to cause the water to run outboard where it goes down the inside of the planking — not a very remarkable device, to be sure, but one which will do in a pinch. This water running down between planking and sheathing may cause rot to start, but at least the berths may be fairly dry.

On the average motor boat, the mast, if there is one, does not extend down below the level of the deck but, even here, the fastenings may cause a slow leak, especially if they are made through a canvas deck. The usual construction here calls for a circular block on the deck into which the tenon at the mast heel sets. Of course this will not leak but the fastenings of the block to the deck may do so. Possibly, the arrangement shown in Figure 7 might help here as it will keep the water away from the foot of the mast and also from the block. Figure 7 shows a mast running clear through the deck, but the arrangement would be the same for either rig.

Occasionally, the canvas on a deck will be ripped and sometimes a whole chunk of the cloth will be removed. Under such conditions it is somewhat difficult to make a good job, but one may at least prevent leaks by using the arrangement shown in Figure 8. Here a patch has been placed on the under side of the deck canvas after the tear has been trimmed off. The patch should be set in marine glue or old paint and the edge of the tear tacked down with copper tacks, closely spaced. It will be impossible to paint over the spot without making an unsightly place in the deck and it is therefore advisable to repaint the entire deck. A clever workman can make such a good job of one of these patches that it can hardly be distinguished, and in many cases, after the patch has been placed on the under side, a piece of canvas, the exact thickness of the original material, will be tacked into the hole in such a way that the surface is even. By using small headed copper tacks the job can be made quite smooth.

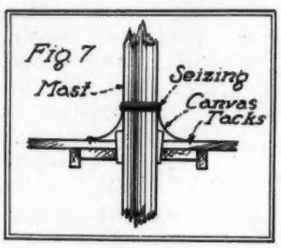
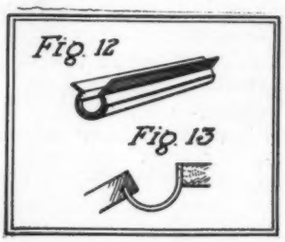
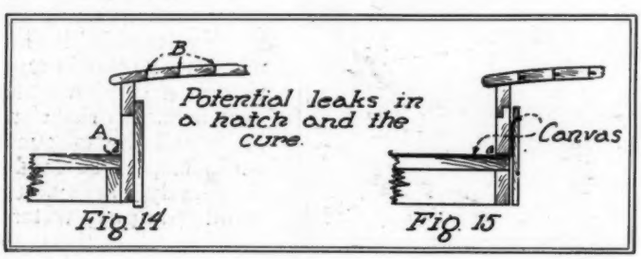


Fig. 9
Large headed tacks cover both edges
Where canvas is completely gone it is necessary to patch.
Where canvas is not removed, use marine glue and copper tacks.
Fig. 8





In Figure 9 we have a rip in which the canvas remains attached by one edge. This type of rip is usually called a "winkle-hawk," but don't ask why. The material may be stuck down with marine glue and the edges tacked in place. Sometimes, where there is just a plain rip, tacks with wide heads may be used to cover both edges, but if this is done be sure that the edges are held securely, as any looseness may cause a further rip to develop.

Skylights are perpetual trouble makers unless they are

(*Continued on page 88*)

Part of the Northeast Harbor fleet racing under the hills of Mt. Desert.

The Northeast Harbor Fleet Goes Cruising

By J. Philip Walker

WE boarded the *Dreamer*, our 47-foot yawl, early Wednesday morning, August 17th, on one of Maine's most perfect days, all set for the Northeast Harbor Fleet three-day cruise. To members of some of the larger eastern yacht clubs, the word "cruise" carries with it the idea of an ocean voyage. To us it means three days of racing and two nights "aboard." The boats range from the 15-foot Northeast Harbor O Class to Malabar schooners, and include the 21-foot Herreshoff S Class, the 17½-foot Crowninshield B Class, the 17-foot Northeast Harbor A Class, and the 16-foot Mt. Desert Island Class.

As we sailed over by the mouth of Asticou Harbor in a fresh southwester we saw that seven "S" boats and five "MDI's" had sailed over from Bar Harbor the night before to join the fleet. Besides the racing classes there was a fleet of some 20 miscellaneous power craft. The *Dreamer* sailed with the schooners. At 10:15 the committee boat sounded its warning gun, and by 10:50 all the boats had crossed the line. Some 50-odd boats were sailing "down to the sea."

About noon the wind let go and light sails made their appearance. The bell buoy off Long Ledge, which served as a mark of the course, proved a stumbling block to several of the younger captains. It was a tremendous temptation to cut inside of the ledge and sneak around to Bass Harbor Head. The realization that this would disqualify the boat forced them about and they returned to round the buoy. There was a long reach from here to Seal Cove. An occasional breath of wind filled the ballooners, yet it was a slow trip up Blue Hill Bay. One of the schooners lost courage and started her motor, but the rest of the fleet refused tows and used the occasional puffs to the best advantage. There was a light breeze at the entrance to the cove, however, which made a pretty finish. The *Marita*, owned and sailed by Franklin M. Haines, crossed first among the schooners. Edward W. Madeira's *Sagamore*, winner of the Northeast schooner race and second in Class B in the 1926 Bermuda Race, took second place.

Bar Harbor's entries were represented among the winners by Miss Harriet Ogden's *Koshair*, which took first place in the S Class, with H. H. Thorndike's *Iroquois II* a few lengths behind. Arthur P. Butler, Jr., in *Eaglet* and William J. Strawbridge, Jr., in *Tsana* won first and second place respectively among the A boats. In the B Class Malcolm Stanley's *Venture* crossed the line a few lengths ahead of Mrs. James Murphy's *Electron* for another victory. The honors again fell to Bar Harbor in the "MDI" Class, where *Red Jack*, sailed by F. Leonard Kellogg, took first and Reginald S. Johnson's *Squall* second place. Dr. A. L. Keyes sailed his O boat *Little Wooden Shoe* to victory, with Stephen Whitney's *Miss Deal* just behind.

By four o'clock the entire fleet was resting at anchor in Seal Cove, with sails furled and ships dressed. The outboards were humming on every side and the water was dotted by young swimmers. Suddenly out of the western horizon there appeared a seaplane. It reached us, circled around a few times, then dropped to the water, was towed up and anchored. Upon investigation it was found that the owner of the New York "Fifty," which had joined the fleet, saw only one method of combining business and pleasure, and so chose this rapid means of transportation in order to reach Boston the following morning.

The morning of Thursday broke as clear as the day before. A light breeze blew from the west. Breakfast was interrupted by the seaplane which bore off to the west at an early hour. The plane seemed to take the wind with it, for when the first gun sounded at 8:55 there was not a breath. The sun beat down and was reflected by the glass-like water. With the last gun at 9:30 a light breeze sprang up and pulled the boats along by their light sails. It was a long run up the bay to the Kollegiwidwok Yacht Club at East Blue Hill where Commodore Milliken entertained the fleet at lunch, and a rough trip from the boats to the shore, as a strong breeze had blown up from the south and there was a heavy chop. After luncheon Commodore Milliken presented cups for the morning's race from Seal Cove. The winners were as follows: Schooners—*Sagamore*, Edward W. Madeira; *Dreamer*, Howard Cooper Johnson. S Class — *Busy Bo*, Robert B. Bowler; *Koshair*, Miss Harriet Ogden. A Class — *Kipper*, Roger Milliken; *Eaglet*, Arthur P. Butler, Jr. B Class — *Venture*, Malcolm Stanley; *Ace*, Henry Stebbins. MDI Class — *Squiseo*, Miss Eleanor McCormick. O Class — *Fifteen*, Miss Martha Milliken; *Bimbo*, Thomas H. Clark.

Mr. Bowler, winner of the cup for the S Class, did one of the most sportsmanlike things in the history of Northeast racing.

The fleet at anchor preparing to get underway from East Blue Hill.

Feeling that the dead calm at the start of the morning's race had overemphasized the luck element, he put up the cup which he had just won, for the afternoon's race back to Seal Cove.

The first gun for the afternoon's race was sounded at 2:15 and there was a strong southerly blow. Many of the small boats found it necessary to reef. The *Dreamer* had just crossed the starting line, which was marked by the stake boat and a racing buoy, when we saw the committee boat leave its position on the line to go to the aid of a boat which had gone ashore. She did a hasty and good job of rescue work and was back on the line for the next gun three minutes later. *B10*, the leading boat in its class in the August series at Northeast, carried away her mast jockeying for a position at the start. *A21* was dismasted later in the race, giving evidence as to the fresh southerly wind. The *Dreamer* reached the finish line at Seal Cove to find that the *Marita* had crossed first among the schooners with the *Sagamore* as a close second. F. O. Spedden, in his *Spindrift*, won the cup which Mr. Bowler had put back in racing for the S Class, and his *Busy Bo* took second place. Again *Kipper* took her usual first among the A boats, as did L. J. Brengle in his *Witnit* in the B Class. *Sinbad*, sailed by Charles Pratt, followed *Kipper* for a second place, and F. H. Smith's *Whoosis* closed in close to a length behind *Witnit*. *Red Jack* continued its string of victories with F. Leonard Kellogg at the tiller for the "MDI's," with Miss Eleanor McCormick in her *Squiseo* close behind. S. S. Drury, Jr., made appropriate the name of his O boat *Cheerio* by crossing first in his class, with Dr. A. L. Keye's *Little Wooden Shoe* in second place.

Seal Cove was a welcome sight with its relatively calm waters, but the crew of the *Dreamer* quite hated to turn in, as it was just the wind for her. During the night, however, the wind shifted to S.S.E., and the following morning one found a steady drizzle and a heavy fog. Nevertheless, it quite failed to dim spirits and, with compasses out and sails set, the majority crossed the starting line for the race home. To the *Dreamer* fell the lot of towing a small motor boat whose engine had failed, as our Skipper was acting as fleet captain. The wind dropped after rounding Long Ledge but, fortunately, there was a favorable tide which carried the boats in towards Grennings Island, off Northeast Harbor. A light breeze sprang up near the finish line, and with "flying colors" the fleet crossed to finish. Once again the *Marita* finished first among the schooners, and *Sagamore* took second place. *Koshair* won the S boat race, with *Spindrift* immediately astern. Mrs. Henry Parkman's *Daffydill* followed close behind *Kipper* in the A Class, while *Venture* again won for the "B's," with John Tyssowski's *Q. T.* in second position. *Red Jack* took its usual first among the "MDI's," with *Squiseo* as a close second. *Little Wooden Shoe* changed place with *Cheerio* to win among the O boats.

Indian Harbor and Pilgrim Yacht Club Crews Win Women's Championships

CLEVER boat trimming and skilful tiller work, backed by excellent sail handling, enabled Miss Lorna Whittelsey to win her second National Women's Sailing Championship in two years at the Cohasset Yacht Club in mid-September and gain for the Indian Harbor Yacht Club, of Greenwich, Conn., another leg on the Mrs. Charles Francis Adams Cup. The crew was again made up of Edith and Helen Wills. The Girls' Championship was captured by Miss Mary Atkins of the new Pilgrim Yacht Club, of Plymouth, Mass., her companions being Mary and Elizabeth Loder.

Eleven crews sailed in the Women's Championship and six in the girls' event, and so close was the competition that 11 of the 16 matches in the two yachting tournaments went to three races each for decisions, while more than half of the 43 races sailing in the three days were won by seconds only. Last year a majority of the matches were won in straight races.

In both tournaments the crews were paired in a seeded draw and sailed the best two out of three races, changing boats after each race, the women using Manchester 17-footers and the girls sailing in Alden 15-foot "O" boats. The courses were all triangular, about four miles, sailed once in the preliminary rounds and twice in the finals. On the first and third days a northeaster kicked up a heavy slop on the grim ledges of Minot's Light which tried the stamina of all hands, but no one "caved."

The closest matches were the semi-finals between Indian Harbor and Beverly and between the former and Pleon in the finals. Miss Whittelsey found doughty antagonists in Eleanor Hoyt, of Beverly, and Frances Pitcher, of Pleon, who had captured three championships at Marblehead in the fast Triangle Class.

After losing the first race to Indian Harbor, Miss Hoyt got the start in the second and, despite frequent tacking by her opponent, held her advantage to a 17-second victory. She again won the start in the last race, and appeared to have victory clinched as she wore around the second mark, but Miss Whittelsey shot her boat wide around the buoy and was almost on top of the Beverly boat when her crew broke out the spinnaker. In the sharp luffing match that followed, Miss Whittelsey won the lead and captured the race by 14 seconds.

In the first race in the finals Miss Pitcher was too soon and had to restart, but Miss Whittelsey was indiscreet enough not to keep the upper hand in the beat to the first mark, and found herself trailing at the turn and all the way to the finish. Pleon easily captured the start in the second race, but Indian Harbor went through to leeward, turned the first mark by 20 seconds and increased the lead steadily, winning by a minute and four seconds.

Miss Pitcher again outmaneuvered Miss Whittelsey at the start in the third race and then swung away for a beautiful lead. This the Marblehead girl held to the windward mark and on the two reaches, turning the home buoy for the final round 34 seconds to the good. But Miss Whittelsey had not been trailing idly. All the way around the course she was constantly shifting her crew, and when she turned to windward for the second time she had "found" her boat. Fifteen minutes later she tacked on top of Pleon, turned the mark with a comfortable lead which she held to the finish, and won by 34 seconds.

The little Atkins girl, who, by the way, has been sailing only two years in small craft, found Miss Caroline Hunnewell, another Marblehead production of the Brutal Beasts and Class T schools, her superior in starts, but the Pilgrim skipper twice sailed through

(*Continued on page 90*)

Photo by Acme

Miss Lorna Whittelsey, skipper of the Indian Harbor crew which won the National Women's Championship at Cohasset.

Central Park Retains the Eagle Trophy

By W. H. Meserole

THE Eagle Cup Regatta for 1928 was sailed on September 16th under the auspices of the Model Yacht Racing Association of America, at the sailing station of the Central Park Model Yacht Club, on Flushing Bay. This is a new station for the Central Park Club, replacing their previous one situated on the western shore of the same body of water. This new station, which they occupy in conjunction with the Williamsburg Yacht Club, is not ideal, perhaps, but it is vastly better than the old one. Flotsam and subsurface obstacles have to be avoided, as in the waters of any other metropolitan district, but taken all in all, it's a good place to sail models. Flushing Bay is a big body of water in which a straight-away mile can be laid out when the wind favors, or a triangle of several miles in the three legs. Whatever the wind, a good course is possible.

Three clubs were represented in the regatta, the Central Park Club (defending the trophy), the Boston Model Yacht Club and the Prospect Park Model Yacht Club (challengers). Arrangements were made this year for a Class A (international) model regatta on the Saturday preceding the main events, and the Boston enthusiasts came down with a dozen (?) boats of this type, all prepared to clean up the local talent. Their plans, be it said, were carried out to the letter, for they did clean up the local talent to the queen's taste. Had it not been for Bull's *Polka Dot II*, they would have had it all their own way. The first race was sailed at about 3:30 — a moment when Bull was more interested in seeing how his little boat was tuned than he was in watching where the committee boat went, and the result was that he could not — or at least he did not — get to the line in time to sail. It was a spanking good breeze and enough of a jump existed to toss the little fellows about considerably. It took a good sea boat to win, and Pigeon proved that he had one in his *Westward*, which won handily. It was something of a hollow victory, however, for *Patsy*, the only other real contender, had some sort of trouble with her jib which quite put her out of the running.

The second Class A race was taken by Bull, and it constituted a triumph for the number one boat of the class, *Polka Dot II*. Pigeon ran a good second, though, and the other Boston boats piled up the score. The third race was taken by Pigeon again, and the regatta resulted in a final score of, Boston, 76; the two local clubs, 56. Boston had more boats on the course, and deserved to win, as the eastern sailors had a big edge on the New Yorkers in this class.

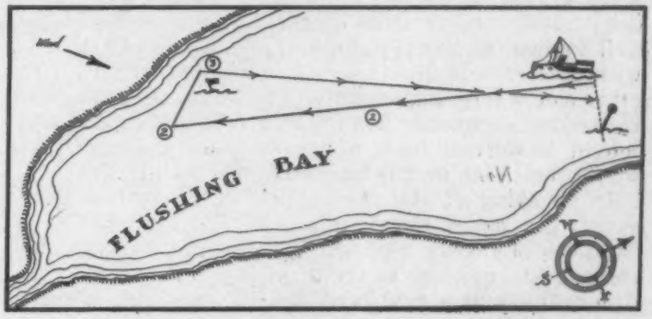
As we have said, the weather was ideal, with a good strong south by west wind. But by Sunday morning it had eased up greatly and remained hardly strong enough to hold off the booms of the larger boats when the Eagle Cup Committee called the contenders to the line for the first race. This heat, called at about 10:30, was over a windward and leeward course of something less than a mile in each direction. The going was hardly light enough to call it a drifting match, but it was too light to make much of a test. Pigeon, Clark, Weaver, Bull, and Pyle elected to take their time in going across the line, but as usual Tucker, of Prospect Park, gave his team-mates heart failure by getting over exactly on the gun. He was never overtaken but lost on corrected time to several other boats, as all touches were taken. Pigeon won by nearly half a minute, with Pyle an easy second. The team scores for the heat were: Central Park, 19; Boston, 16; Prospect Park carried the target with but 10.

The second heat was called immediately after the conclusion of the first and over the same course. It was practically a duplication of what had gone before. Tucker, again off with the gun, led the way and was never headed, but Clark closed up the gap a bit and got across second by slipping up under the stern of the committee boat, for which he received a big hand from the spectators. Neither of these men did well on the corrected time basis, however, for Pigeon again took first place by virtue of the fact that he had but three touches, and Pyle and Weaver, both always reliable, edged in for second and third places. What killed the chances of the Prospect Park men were the touch penalties they took. The team score in this heat was: Central Park, 17; Boston, 15; and again Prospect Park carried the target with but 13.

For the third heat the course was changed to a triangle, a windward leg down into the bay, a reach across toward the west, and another reach home. By this time the wind had freshened considerably and the fleet made remarkably good time. Pyle took the lead quite early on the first leg, was never headed, and won handily by better than a minute on corrected time. Clark followed him across the line an easy second, but had no chance of picking up the pacemaker. Tucker followed Clark over rather closely but both were displaced by Pigeon and Weaver on corrected time. The team score for the heat was: Central Park, 18; Prospect Park, 14; and this time Boston bore up the rear with 13.

The total score on the basis of corrected time was: Central Park, 54; Boston, 44; and Prospect Park, now quite used to carrying the target, 37. And so ended a perfect day — or an imperfect one, if one happened to be a member of the Prospect Park Club.

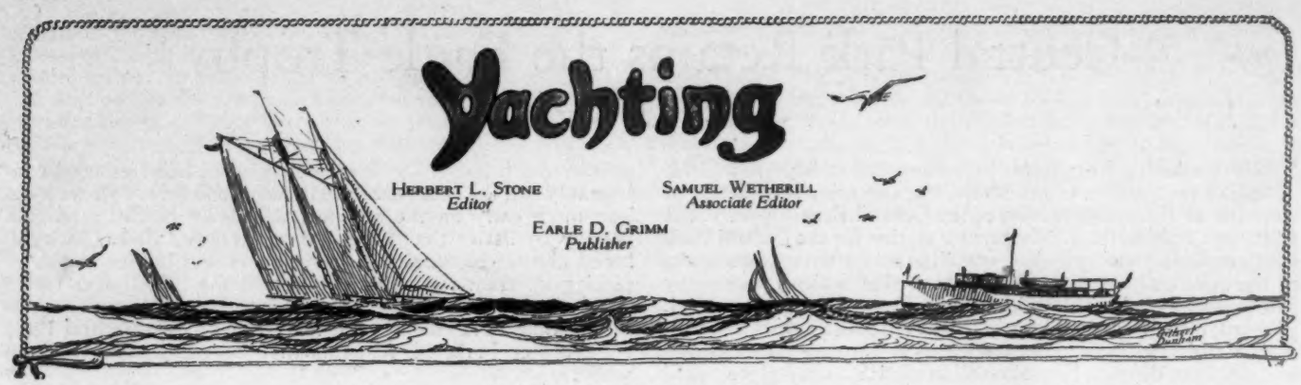
Two big upsets in the dope were perfectly plain. The first was the failure of the veteran *Polka Dot* — heretofore the anchor craft on the Prospect Park team, and a sure point winner. This time she did badly, placing sixth twice and ninth once. Something was



wrong with *Polka Dot* and Bull himself does not know what it was. She just did not perform at all.

The other big upset in the dope was the performance of Fred Pigeon's new red Class B boat. This boat, appropriately enough called *John Harvard*, did not look particularly tricky, and no one expected Pigeon, or anyone else, to bring out a new boat to sail under unfamiliar conditions as well as this able craft did. But Pigeon crashed through to two wins and a second. If anyone can beat that by much in three heats we'd like to hear about it.

The thing which counted most in the performance of this boat was the fact that she was perfectly balanced — perfectly reliable. Once set upon a course she held it with dogged tenacity and mechanical precision. Time and again the other yachts were momentarily in irons and all aflutter in the slight veering of the wind, but *John Harvard* held her course, and looked right up to the wind, regardless of whence it came, and that without a touch. She was a marvel of perfect balance. In the first heat Pigeon had but eight touches. One of these was moot, in that he still had his hand on the boat when she got across the line and into the race — technically a touch, and so tallied, much to Pigeon's disgust. Of course this was a windward and leeward course, and so eight touches are not by any means perfect performance, but the other craft all required more than that. In the second heat both man and boat turned in a performance which was almost perfect. It was so amazingly good that it is worthy of plotting. A windward and leeward course of over a mile with but three touches. And one of those touches the unfortunate result of flotsam caught under the bow of the model. If he had not brought his skiff too close and bumped the model, even this would not have been a touch, for in removing the obstacle the yacht was not touched by the hand. In any event, the handling of the boat and her performance in this heat was the nearest thing to perfection that the writer has ever seen. Perfection in a windward and leeward course would be one touch — employed in rounding the mark and squaring away for home. In effect, Pigeon had but two. The rest of the fleet had everything from 10 to about 25. In all three races this boat was charged with a total of only 22 touches — which is some sailing.



Editorial

British Comment on the Fastnet Race

SHORTLY after the finish of the Fastnet Ocean Race last August, an article appeared in *The Field* (London), presumably written by the yachting editor of that well known sporting journal. This, if allowed to pass without contradiction, is apt to give yachtsmen on the other side a false impression about the winner, Mr. Paul Hammond's schooner *Niña*. The article also, apparently, sought to detract from whatever credit was due those who sailed *Niña* in this long race over a difficult course.

In speaking of the fleet which sailed in this year's event, the writer characterizes the English yachts entered "as of inferior type and rig," except *Jolie Brise*, and states that "in order to try to win the Fastnet Race the Americans built a new boat 'to the rule,' the *Niña*," a yacht which "represented the best that money could produce in order to accomplish this particular purpose."

For the sake of accuracy it should be pointed out that *Niña* was not built for this race at all, and that she was not designed to this rule. She was designed and built solely for the Transatlantic race to Spain under a rule whose limiting factors were quite different from the Fastnet Rule. As proof of this, in the Transatlantic race, *Mohawk* had to allow *Niña* something over 26 hours, while when measured under the Fastnet Rule the *Niña* had to allow *Mohawk* two hours, three minutes. *Niña* was built for ocean racing, it is true, and she is an excellent yacht for that purpose, but she was not built to win the Fastnet Race, and was not built to that rule.

In regard to the "lack of class" in *Niña's* competitors, the writer for *The Field* overlooks entirely the *Noreen*, twelve-metre racing yacht, designed by Anker, with a modern Bermudian yawl rig. Under the conditions that prevailed in this year's race this boat should have held her own in any company. It is too bad that she quit, already beaten, before leaving the Channel.

It is probably true that in British waters cruising yachts for ocean racing have not been developed to the extent that they have been in our country. But this development in our waters has been largely due to the Bermuda, and other ocean races, and it is to be hoped that the Fastnet Race will bring about the same result abroad. The development of the cruiser is just as important to our mind as the development of the racer. And sailing ability is just as much a requisite in a cruiser as any other quality.

Finally, let it be said, that in ocean racing success is not dependent on the boat alone. Everyone who has sailed in these long events knows that the handling, judgment, seamanship and the "breaks of the game" play an equally important part in winning. The fastest boat poorly sailed will not win. Slower boats well sailed frequently will. This has been demonstrated time and time again. We are in hearty accord with the words of another English yachtsman, who sailed in the last Fastnet Race and who writes us, "Frankly, we can only be glad that ships have been specially built for ocean racing and that these ships have won. That we must build to rewin this cup, as has recently been asserted, is not in my humble opinion essential, though desirable. We already have the ships *and the men*."

The New 46-Raters

Nothing has happened in many years that gives those interested in yachting as much satisfaction as the promotion of an open M Class of 46-raters. No less than four new yachts of this class, all of different design, have been ordered for next season's racing, which, together with *Prestige* and *Valiant*, will make a class of six large yachts, with the possibility of more being added to the number before the opening gun next May. It has been a long time since we have built as many yachts as large as this to an open class, and the benefits from a designing standpoint cannot be overestimated.

Of the four new boats ordered, one is for Junius S. Morgan, from designs by C. D. Mower; one is for George M. Pynchon, from the Herreshoff family, while Burgess is designing two, one for Floyd Carlisle and the other for Carroll B. Alker.

There seemed for a while to be a possibility of several boats in the class for Marblehead yachtsmen, but at this writing the chances seem to be slipping. Two well known "Down East" racing enthusiasts were willing to build if others would do the same, but the necessary support to assure a class in Massachusetts Bay was not forthcoming.

Eight-Metres for Seawanhaka Cup Challenge

With the acceptance of the challenge of the Royal Northern Yacht Club of Scotland for the Seawanhaka Cup, by the Seawanhaka Corinthian Yacht Club, New York waters are again assured of an international event for next summer. More noteworthy, however, is the fact that through the challenge, which has been accepted for a race in the Eight-metre Class, development of the international rating rule has again been stimulated.

Work has been started on the designing of two boats by Commodore Clinton H. Crane, one for himself or a syndicate and the other for Johnston de Forest, who was one of the leading members of the Six-metre Class during the past summer. The third boat is to be designed by Charles D. Mower for E. Townsend Irvin, while C. Sherman Hoyt is at work on plans for a Sound yachtsman.

In the World of Yachting

WILLIAM B. BELL

ALTHOUGH William B. Bell has been well known in racing circles on Long Island Sound for some years, it was his winning of the King of Spain's Cup in the recent Transatlantic race with the schooner "Elena" that brought him into international prominence. To those who know the full story of that race, Mr. Bell's achievement in getting the "Elena" ready for the event and to the starting line on July 7th, was as noteworthy as his success in winning the race with one of the smallest yachts in the larger class.

Mr. Bell purchased the "Elena" late in 1926, but she was not used during 1927 and had not been in commission for some twelve years. The task of preparing her for an Atlantic race, which included cutting down her rig and getting two new masts, together with certain structural changes, was therefore a Herculean one. Under the direct supervision of Captain John Barr, it was, however, accomplished in time for the start.

Mr. Bell's early yachting activities consisted in cruising along the coast. About ten years ago he purchased the Stamford one-design "Helen G.," in which he did his first racing on the Sound. In 1923 he purchased the N. Y. Y. C. forty-footer "Mistral" and has raced consistently in that fine class ever since, and has done much to keep the class intact on Long Island Sound. Last season "Mistral," sailed by "Corny" Shields during her owner's absence, took every squadron run in her class during the New York Yacht Club cruise, and also won the Long Island Sound championship.

In the Transatlantic race "Elena" not only won in her class, but beat the larger yachts, boat for boat, by nearly a day.

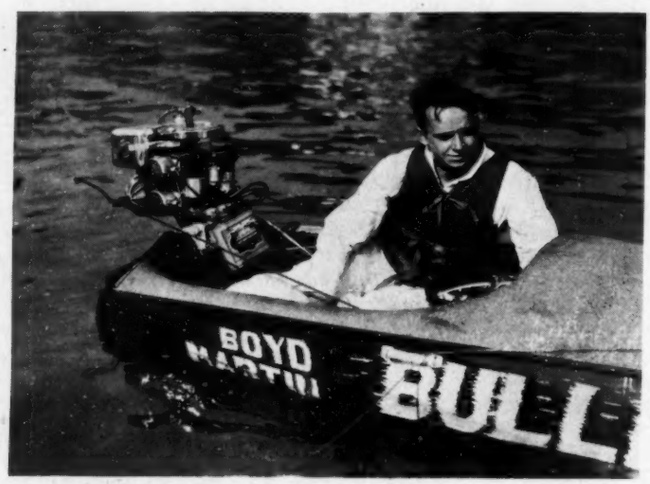
A fine start in the Class C Free-for-All outboards at the recent regatta of the Norfolk Yacht and Country Club. The winner was *Muriel*. A fine fleet of outboards was on hand for the two days' racing, September 15th and 16th.

The Month in Yachting

Outboards Set New Records

EARLY in the year the prediction was frequently made that a speed of 40 miles per hour would be reached by outboard racing craft during 1928. This prediction became a reality during the Midwest Championship Regatta of the Illinois Valley Yacht and Canoe Club, held on the Illinois River at Peoria, September 29th and 30th, and a new record was hung up by one of these little craft in the mile trials that only a year ago would have seemed unbelievable. Not only once, but twice, was the 40-mile mark bettered, both of the performances being made in a series of six runs over the mile course, with and against the current.

The first to top the 40-mile mark was Eldon Travis, of Peoria, in a Boyd Martin Bullet, who turned in an average for the six runs of 41.748 m.p.h. Pressing him closely in the matter of speed was Ralph Harrington, of Wilmette, in a Century Cyclone, with an average of 40.453 m.p.h. Both of these little boats were equipped with an Elto Hi-Speed Quad motor. These trials were run over a course surveyed and checked by United States Government engineers, and were electrically timed under the supervision of Gordon G. Gillies.



Eldon Travis and his Boyd Martin Bullet. In the mile trials at Peoria he turned in a record of 41.748 m.p.h. made with an Elto Quad.

What was, perhaps, the most spectacular event of the whole regatta was the 25-mile Free-for-All, which was eventually won by Ray Preganzer in a Century Cyclone, after he had followed in the wake of *Uniplex*, driven by William Frey, of Madison, Wis., for ten laps of the long course. At this point, Frey, in the gathering darkness, missed a buoy and cut inside it, and was immediately counted out by the checker. This let Preganzer into the lead, and he completed the 25 miles in 41 minutes, 21⅕ seconds, or an average of 36.261 m.p.h. — also a record for the distance.

In the five-mile Free-for-All Bill Frey's Quad-driven *Uniplex* made the fastest time, 36.9 m.p.h. in his best heat. The same outfit also won the Class E Free-for-All at Wilmington.

In the Free-for-All at five miles, Bill Frey won in straight heats from a field of 19 starters. The first heat was the fastest, Frey turning in an average of 36.9 m.p.h., driving a Century Cyclone. Ray Preganzer finished second with 36.54 m.p.h., while the third boat, driven by Ralph Harrington, also topped the 36-mile mark, all three drivers using Hi-Speed Quads. In this event Travis made the fastest lap of the regatta when he rounded the second circuit in 4:00-⅗, equivalent to a speed average of 37.437 m.p.h.

The 151-Class race saw the outboards competing against a conventional class hydroplane, and beating her, at that, for the little *Uniplex*, driven by Bill Frey, took the event in the fast time of 36.87 m.p.h.

The regatta was one of the best attended of the season. Practically all sections of the Middle West and South were represented, entrants coming from as far north as Wisconsin, and from as far east as Michigan.

The fleet of A. C. F. cruisers finishing the race to Execution Light and return, September 12th, George C. Heck's *Helrie* leading.

A. C. F. Fleet Day

SOMETHING of an innovation in power boat racing was staged off the Kenilworth Yacht Club, on Manhasset Bay, September 12th, with a gathering of some 30 A. C. F. cruisers and the formation of an A. C. F. Fleet in New York waters. The cruisers ranged in size from 30 to 54 feet and, in the hands of their owners, took part in a cruiser race over a course that took the boats out around Execution Light and return. It was an ideal day for racing, with a fresh sou'west breeze and a brilliant sun.

Preceding the race, a buffet lunch was served at the Kenilworth Club, at which Major D. C. Black acted as host. At the meeting that followed, E. D. King, of Red Bank, N. J., was elected commodore of the fleet, and plans were put under way to make

A. G. Becker's *Muriel* won the Curtis Challenge Trophy in the Class C Free-for-All, and the Class C Development Free-for-All at Norfolk with an Evinrude motor.

this Fleet Day, fostered this year by S. Clyde Kyle of the A. C. F. Co., an annual event.

To add to the diversion of a perfect day there was a one-mile race for outboard motor boats which was won by Helen Hentschel in *Miss R. C.-2* in the fast time of one minute and 55 seconds. Summaries of all the races follow:

Yacht	*Owner*	*Elapsed Time*
	DIVISION A—30-FOOT CLASS—COURSE, 9 MILES	
Tidler	J. M. de R. Thebaud	0:57:01
Radio	L. S. Steele	0:59:27
Valentine	N. L. Notemann	0:50:59
	DIVISION B—41-FOOT CLASS—STOCK MOTORS	
Beck	Mrs. R. Spielberg	0:43:45
Mouse	Mrs. O. A. Hirch	0:44:30
Sonny	A. D. Phelps	0:45:30
Pompano	E. R. Stettinius, Jr.	0:58:30
	47-FOOT CLASS—STOCK MOTORS	
Cluny	Dr. Ross McPherson	0:44:55
Jean Marie	Thomas Murphy	0:46:25
Mu-1	George Wiggingston	0:47:39
Acacia	W. R. Skiff	0:47:53
Riot	E. D. King	0:38:35
Helrie	George C. Heck	0:40:32
Allahwanda	G. E. Smith	0:49:33
	DIVISION C—54-FOOT CLASS—SPECIAL MOTORS	
Cladoma	Arthur Lipper	0:31:13

New Bedford Celebrates 50th Anniversary

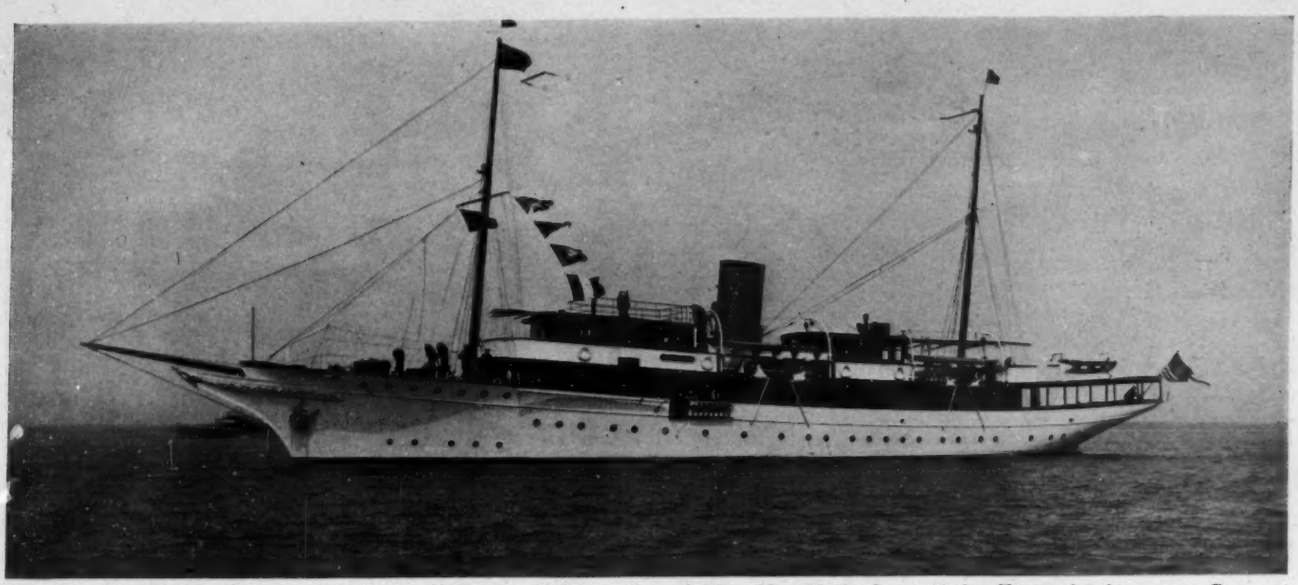
IN fitting celebration of its fiftieth anniversary, the New Bedford Yacht Club completed, late in August, its most successful Race Week. This year the event was augmented by the cruising members of the Boston Yacht Club and the Cruising Club of America. One of the largest fleets ever gathered together at any point on Buzzards Bay was moored at the Padanaram anchorage during Tuesday, Wednesday, and Thursday of Race Week, and was provided with three days of racing and ample entertainment in the form of dances, shore dinners, and chowders at the Padanaram Station. While the greater part of the week's activities really centered about this station, the week was officially opened with a one-day motorboat regatta at the New Bedford Station.

The rest of the week was devoted to the sailing races. If not quite so speedy as the first day's racing, they were certainly quieter, and more peaceful. The weather was as fine as could be asked for. The first race was sailed in an easterly which, though somewhat light, was constant, all the boats finishing in the early afternoon. On the second day the wind was as fluky as any ever encountered in Buzzards Bay, being exceedingly light, and from all points of the compass. However, every class finished well within the time allowance. The last day's racing was by far the best of the three days' contests. A full sail breeze gave everyone wind enough, and made the last and deciding contests the most interesting and closely fought.

About 75 yachts, divided into 13 classes, crossed the line each day. With the exception of the usually popular small schooner class and the catboats, the classes were all well filled. The New Bedford Yacht Club racing formula was, as usual, the basis of the handicapping, and not a protest was heard, so successfully did it work in the mixed classes.

The contest in the class for schooners over 56 feet over all developed into a duel between J. Crosby Brown's *Aurelia* and

Frank Vining Smith's new yawl *Naushon* won in her class at New Bedford.



New Diesel yacht *Coronet*, owned by Irving T. Bush, which recently arrived at New York after a 13-day Transatlantic voyage. *Coronet* is 181 feet long and was designed by Cox & Stevens.

Matthew P. Whittall's *Fontinalis*. The modern staysail rig of *Fontinalis* seemed to give her an advantage over her rival. *Aurelia*, however, after losing the first race, pulled out an unexpected victory in the light airs on the second day, only to lose the series when *Fontinalis* won the deciding race the next day. Raymond Ferris' *Malay*, recent winner in Class B of the Bermuda Race, easily won in the smaller schooner class, having no real competition except on the second day, when she defeated the *Malabar III* by a healthy margin.

The two yawl classes provided the best racing of the handicap classes. In the larger class, containing yawls or ketches over 44 feet over all, there were five crack yawls, including Demarest Lloyd's ketch *Angelica*, winner of the past two race weeks, and Harry P. Kendall's *Nahma*, winner in the smaller class last year. Due to an unfortunate error, *Angelica* and Clarence Higgins' *Rondinella* were thrown out of the first day's race, leaving Dudley Brown's *Janet*, Merrill Hunt's new ketch *Messoma*, and the *Nahma* to finish in the order named and all within one minute and 37 seconds. *Nahma* took the second day's race, beating the larger yachts, boat for boat. Thus at the start of the third day there were three boats with a chance for the prize — *Nahma* with 15 points and *Janet* and *Messoma* with 14. The heavier winds prevailing during the third race seemed to suit the *Nahma* better than the others, and she continued her long series of victories registered at the New Bedford Club by taking this race, and the cup. The smaller yawl class was marked by the victory of Frank Vining Smith in his new yawl *Naushon* over his old rival *Minstrel*.

In the sloop class *Malolo*, owned by T. Jackson, won two races and was second only to L. Howland's *Java* (ex-*Tamara*), which is thought to be the only seven-metre boat in the country. As *Java* raced only one day, *Malolo* won the series on points. George Dow's Casey sloop *Bonheur* took second for the series. The new Catboat Class Cup went to P. Mills' *Dahomey*.

The S Class still shows promise of being the best class in the Bay as far as ability, speed, and general popularity are concerned. Keen racing, exciting luffing matches, and close finishes characterized the series. In numerous instances only seconds separated the boats. It remained for Gilbert Hinsdale to beard the local fleet in its own lair, he earning the cup after three hard races with Paul Whitin's *Red Jacket*, of the local club.

The summary of the speed boat regatta follows:

Women's Free-for-all: (1) Helen Hentschel, (2) Grace Kelleher, (3) Mrs. Slater Washburn.
Grand Outboard Free-for-all: (1) John Allen, (2) A. J. Allen, (3) A. T. Buffington.
Grand Free-for-all (Runabouts): (1) L. D. Pierce, (2) Mrs. Slater Washburn.
200 h. p. Runabouts: (1) L. D. Pierce, (2) H. E. Waitt, (3) T. Parker.
Grand Free-for-all: (1) Stanley Reed, (2) L. D. Pierce, (3) W. M. Chancellor.
151-Class: (1) Stanley Reed, (2) Comm. E. U. Hammond, (3) W. M. Chancellor.
150 h. p. Runabouts: (1) F. Wigglesworth, (2) A. H. Waitt, (3) Mrs. James B. Sheldon.
120 h. p. Runabouts: (1) Mrs. James B. Sheldon, (2) F. Wigglesworth.
Class C, Free-for-all, Outboard: (1) A. T. Buffington, (2) A. J. Allen, (3) Richard Knight.
Class C, Amateur, Outboard: (1) A. T. Becker, (2) Richard Knight.
Class B, Free-for-all, Outboard: (1) J. Herbst, (2) J. E. Wilkinson, (3) A. T. Becker.
Class B, Amateur, Outboard: (1) A. T. Becker, (2) R. Emerson, (3) A. Sutherland.
Class A, Free-for-all, Outboards: (1) A. Sutherland, (2) A. T. Buffington, (3) J. E. Wilkinson.

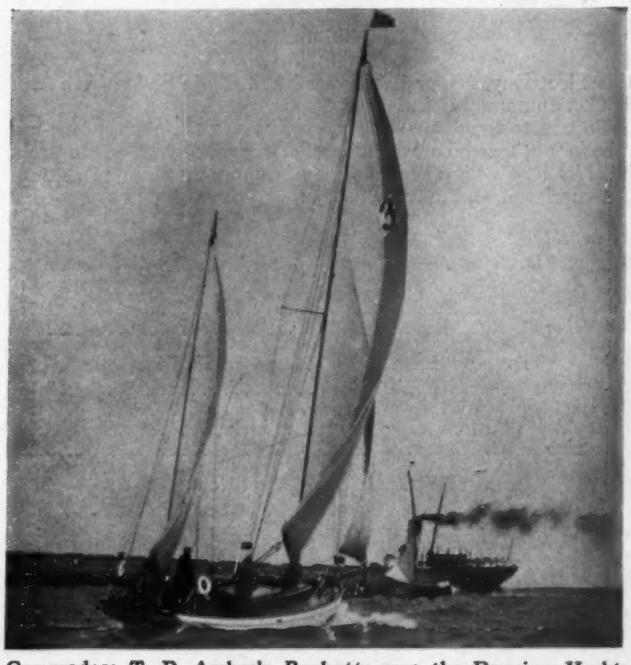
Bayview Yacht Club's Long Distance Race Sets Speed Record

ON Saturday night, September 22nd, the Bayview Yacht Club's annual long distance race tested the seamanship of the Detroit River skippers in one of the fastest and most sensational yacht races in the history of the Great Lakes. As an indication of the sustained speed in this event, Commodore Tom Archer of the Bayview Yacht Club covered the 66-mile course in the extraordinary time of 6 hours and 52 minutes with his yawl *Barbette*, and won only by a margin of 6 minutes, 29 seconds from the yawl *Arethusa*, of the Detroit Corinthians.

The hardest leg of the triangular course was the second, where the shallow shores of the north side of Lake St. Clair are unmarked by buoys or lights. Several yachts went aground, others were blown off their course, and some lost time when they were forced to heave-to to pump ship or replace lost sails and gear.

Six of the entrants in the racing class finished, and to skipper Joe Lodge and his "R" sloop *Quiver* goes the honor of defeating

(*Continued on page 110*)



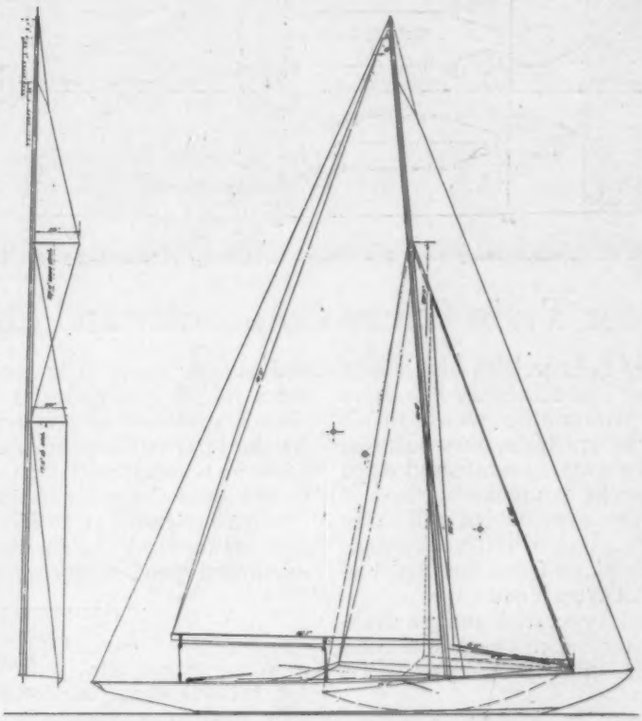
Commodore T. P. Archer's *Barbette* won the Bayview Yacht Club's long distance race.

Akaba, Winner of the Seawanhaka Cup

THROUGH the courtesy of her designer-owner-skipper, we are able to reproduce herewith the lines and sail plan of *Akaba*, winner of the Seawanhaka Cup in Norwegian waters this summer, and probably the fastest all-round American 6-metre boat yet designed. Mr. Crane has previously designed *Heron*, *Lanai*, *Redhead*, *Clytie*, *Frieda* and other fast "Sixes," but *Akaba* is his masterpiece.

The *Akaba* was designed after the Gold Cup Races and the Seawanhaka Cup Races in the fall of 1927. Her sail plan, with the exception of the Genoese jib, is practically the same as the sail plan on *Lanai* and *Redhead*, altered to take advantage of the extra height of mast allowed by the amendments of 1927.

Her hull is longer and narrower than any American six previously designed, and shows very decidedly the influence of the long narrow Scandinavian sixes. Both Sweden and Norway have gone in for longer water line sixes than anything produced in Great Britain. This is due no doubt partly to the difference of weather conditions in which these boats race. It was quite evident in the fall of 1925 that Anker had produced a six in the *Oslo* which was almost as fast as *Lanai* in a strong breeze and very much faster in light to moderate weather. *Noreg*, the winner of the S. C. Y. C. Cup in 1927, in spite of her small sail plan was a very fast all-around six, as was likewise the Swedish *May Be*. The R boats built at Marblehead have shown us how easily driven a long, narrow hull can be, and it was with these lessons in mind that *Akaba* was designed. Her principal dimensions are as follows: l.o.a., 36.52 feet; l.w.l., 22.81 feet; beam, 6.25 feet; sail area, 470 sq. ft.; rating under International Rule, 19.68.

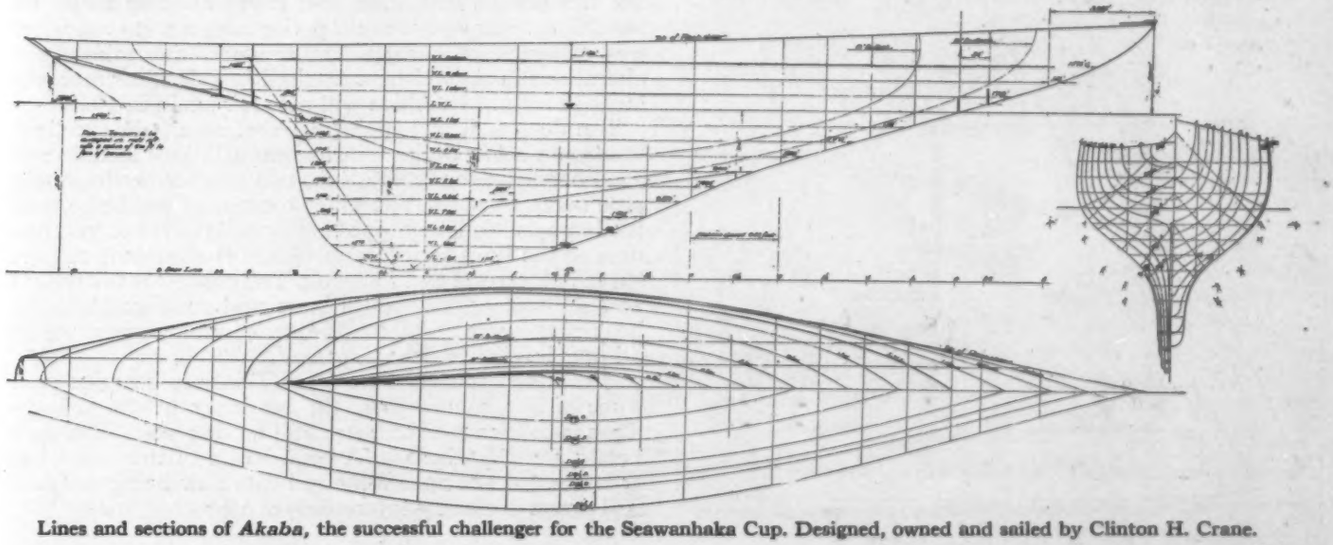


Sail plan of *Akaba*, winner of the Seawanhaka Cup.

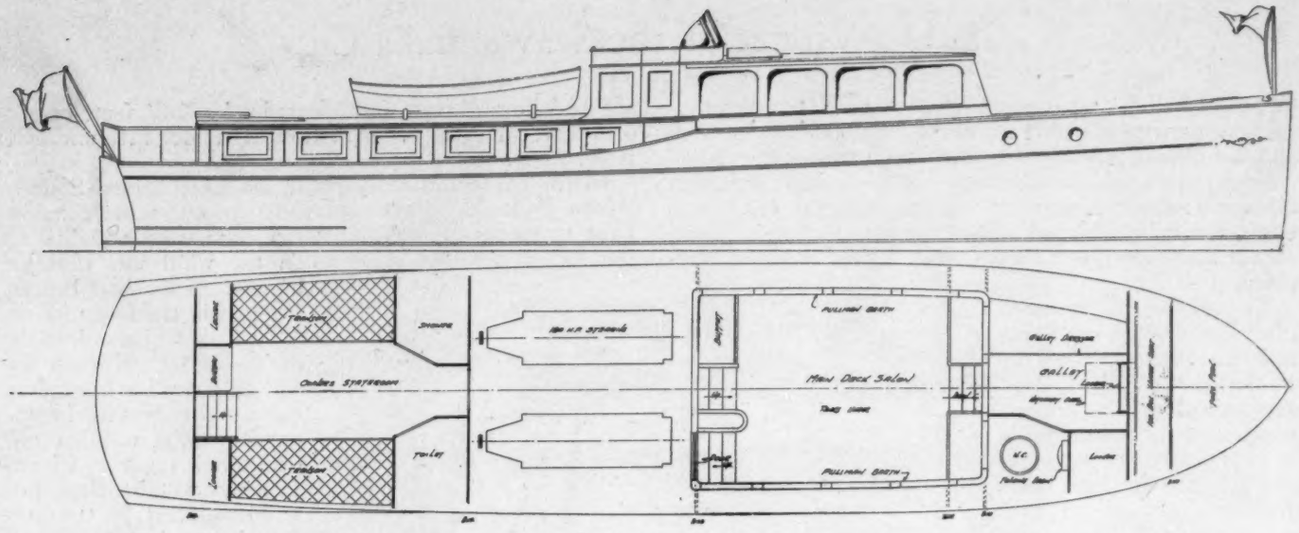
In the trials and early racing on Long Island Sound, *Akaba* showed distinct superiority to our other sixes in light to moderate weather and an apparent equality to our heavy weather sixes when the wind was blowing harder. *Akaba* had beaten *Redhead* in the first race on May 12th and was leading her in the second when she carried away her mast; but this weather was mild compared to the weather encountered on the Clyde. In heavy weather she is not nearly as fast as the new Fife boats *Naushabah* and *Fintra*, although these boats are at least half a foot shorter on the water line than she is. But in weather conditions such as met with in Norway, when she beat *Figaro V*, she has not been beaten.

As the British have challenged for the Seawanhaka Cup, in 1929, the races to be held over here in 8-metre boats, it is more than probable that Mr. Crane will try his hand at an enlarged and improved *Akaba* to meet the English invasion. This challenge also should result in an open 8-metre class, with boats from the boards of the leading American naval architects.

It is particularly gratifying to see Mr. Crane win back the Seawanhaka Cup in a boat of his own design, for he was closely identified with the early races for this cup some 30 years ago, when many boats of his design figured in the series of battles with the Royal St. Lawrence Yacht Club to regain the trophy captured by the Canadians in 1896.



Lines and sections of *Akaba*, the successful challenger for the Seawanhaka Cup. Designed, owned and sailed by Clinton H. Crane.



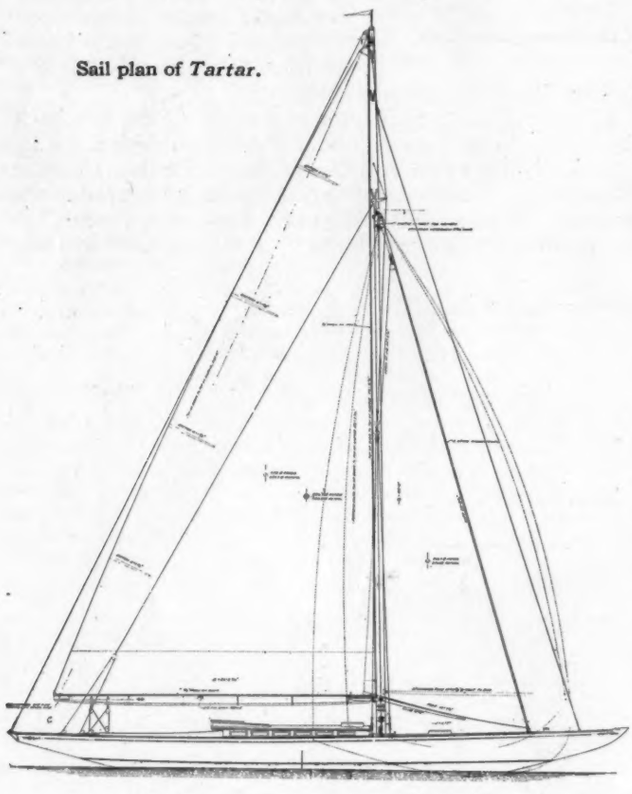
Outboard profile and interior accommodation plan of the 48-foot twin screw commuting yacht designed by P. L. Rhodes.

A 48–Foot Twin Screw Commuter and Day Boat

WITH the development of light weight, high speed motors with great power and reliability has come the development of the fast commuting yacht, in all sizes, speeds and types — craft in which the busy business man may make the trip between country estate and office in the same, or better, time than he can make by train or motor car. A 48-foot craft of this type, which will make a speed of 25 miles an hour with a pair of 180 h.p. Stearns motors, is shown above in the plans from the board of P. L. Rhodes, naval architect of New York City.

This craft is of the raised deck type, with sunken deckhouse, enclosed bridge, and after deck. There is a comfortable double stateroom aft, with connecting toilet and shower bath. The motor compartment, in which there is full headroom, is about amidships. The large sunken deck saloon connects with the galley forward. As the boat is designed wholly for commuting and day trips, no accommodations for crew are included, with the exception of the toilet forward.

With her beam of 10 feet, good freeboard, and flaring sections forward, she should be able to maintain close to maximum speed in any weather short of a bad blow.



Sail plan of *Tartar*.

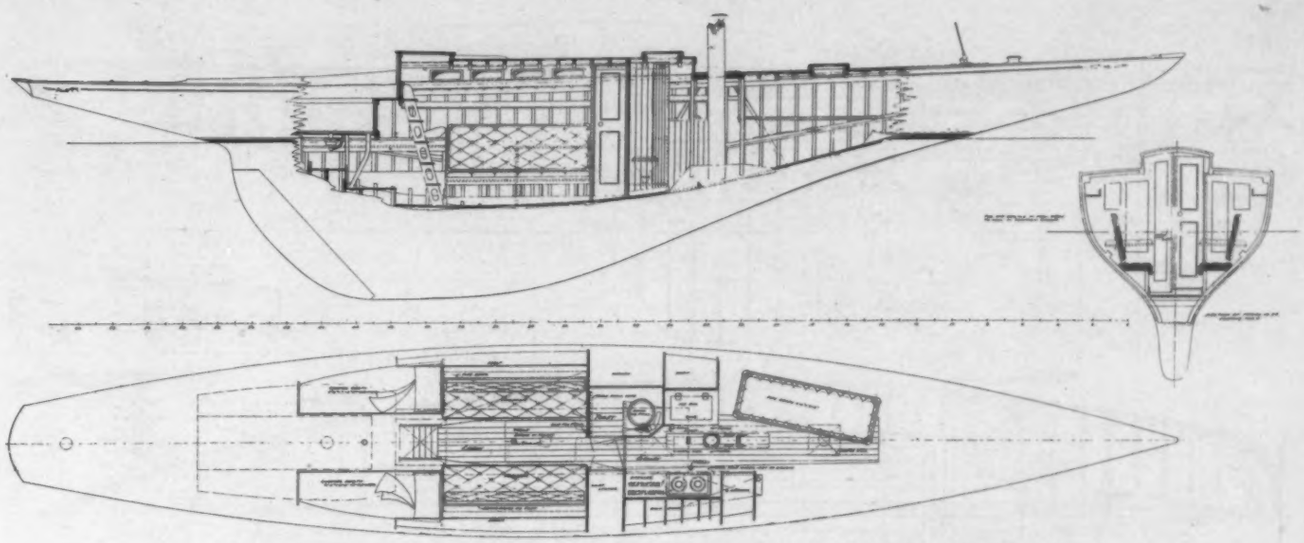
Tartar

A GOOD example of the modern Class Q boat, built under the amended Universal Rule, is shown in the plans, on this and the following page, of *Tartar*, which John G. Alden designed and built for himself, and raced the past season at Marblehead. Class Q is going strong Down East, no less than 12 boats having raced regularly in 1928, while six new ones are either being built or are in prospect.

The principal dimensions of *Tartar* are as follows: l.o.a. 50′ 3″; l.w.l. 32′; extreme beam, 8′ 4″; draft, 6′ 11″; sail area, 896 sq. ft.; ballast, 13,000 lbs; headroom, 6′ 1″. She has proven fast, able, and easily handled under all conditions. Her early season performances were not what was expected of her by her designer, but mid-season alterations in rig and trim resulted in a decided improvement in form. Mr. Alden will race her again in 1929.

The deep hull and high freeboard results in excellent headroom below decks. The accommodations include two good berths in the main cabin, two quarter berths, and a pipe berth forward. The toilet room is of good size, and the large and fully equipped galley adds to the attractiveness of the boat for cruising. There is abundant storage space in lazarette and forepeak. The cockpit is watertight and self-bailing, and quite large and comfortable for a boat of this size and type, the deck forming seats, but at a lower level than the deck itself.

Mr. Alden reports that while *Tartar* is beamier than some of her competitors, the tendency in the new designs is to increase the beam still more, resulting in even better accommodations. A comparison of the new Class Q boats and the open 8-metre boats now being designed will prove decidedly interesting to all racing men.



Inboard profile, cabin plan and midship section of *Tartar*, the Alden-designed Class Q boat.

Eastward—An Attractive Knockabout Schooner Designed by Eldredge-McInnis

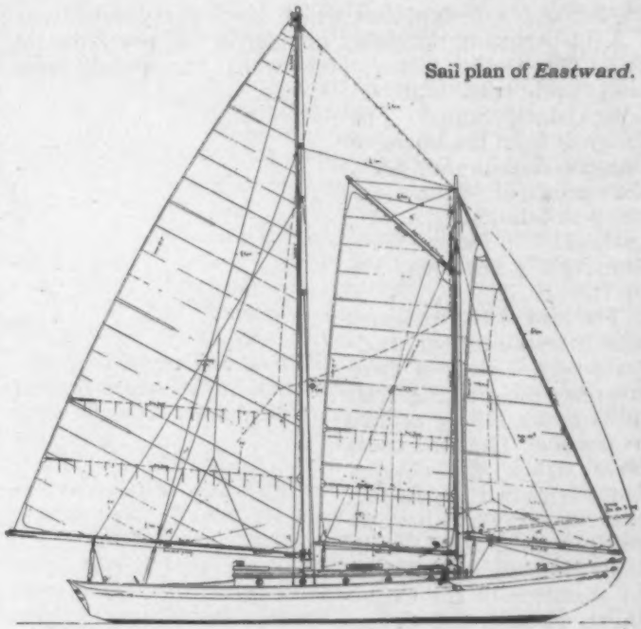
A CRUISING auxiliary of somewhat different type from the average run is seen in the accompanying plans of a knockabout schooner from the board of Eldredge-McInnis. Her name is *Eastward*. Built last summer, she has proved successful in every way. The rig, all inboard, was decidedly easy to handle, and despite the rather small sail area of 918 square feet, she proved quite lively under sail. Her dimensions are: l.o.a. 45′; l.w.l. 34′ 6″; beam, 11′ 6″; draft, 6′ 5″; iron keel, 8500 lbs.

Eastward has a lively sheer and good freeboard, most of her overhang being forward. The cabin trunk has been kept fairly narrow, resulting in excellent deck space. The cockpit is unusually commodious.

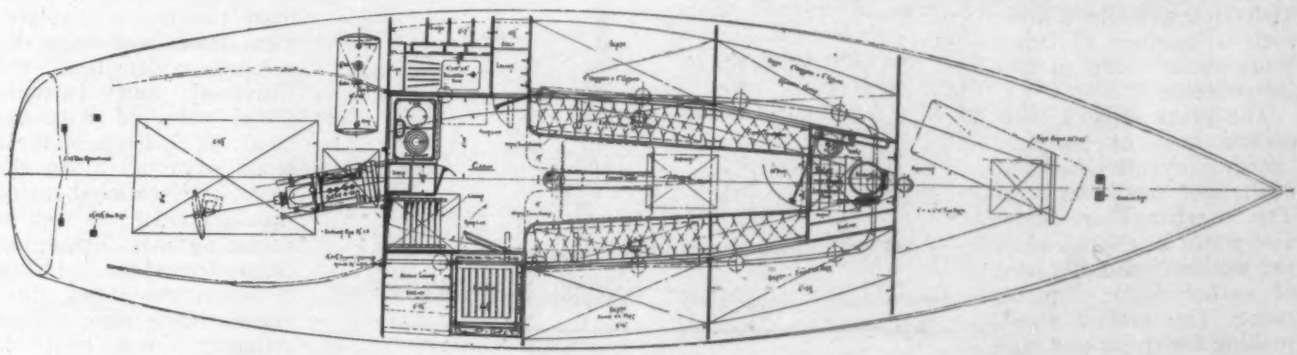
The cabin plan shows plenty of space forward for a paid hand, followed by a large single cabin with four fisherman-type bunks and extension transoms. There is a bulkhead on each side between the forward and after bunks, which, with the addition of a curtain across the floor space, divides the cabin into two staterooms, with a large toilet room just abaft the foremast. The galley is aft, abreast the companion steps on the port side, with ice box and oilskin locker opposite.

The motor, a 40 h.p. Gray, is installed off center, bulkheaded off from the rest of the boat, and drives *Eastward* a good 7 miles an hour in smooth water. Ample stowage space is found in the forepeak and lazarette.

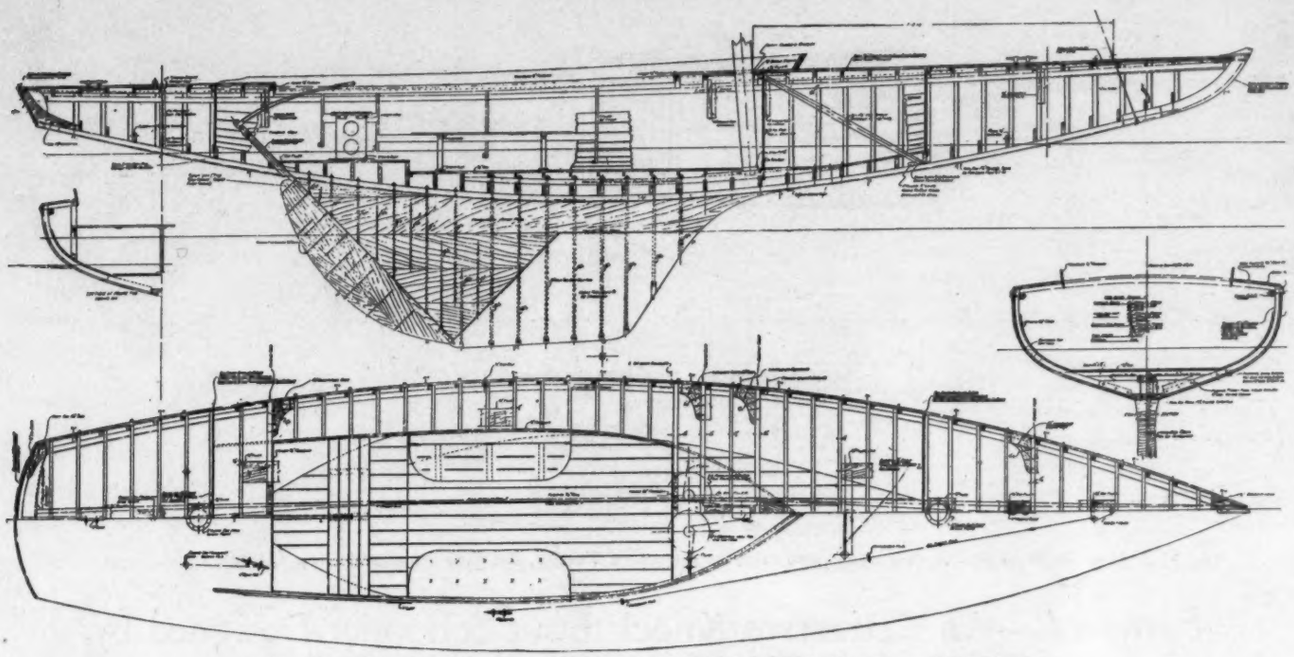
Some attractive photographs of *Eastward*, taken under both power and sail, will be found on page 47.



Sail plan of *Eastward*.



Accommodation plan of *Eastward*, the 45-foot knockabout schooner designed by Eldredge-McInnis.



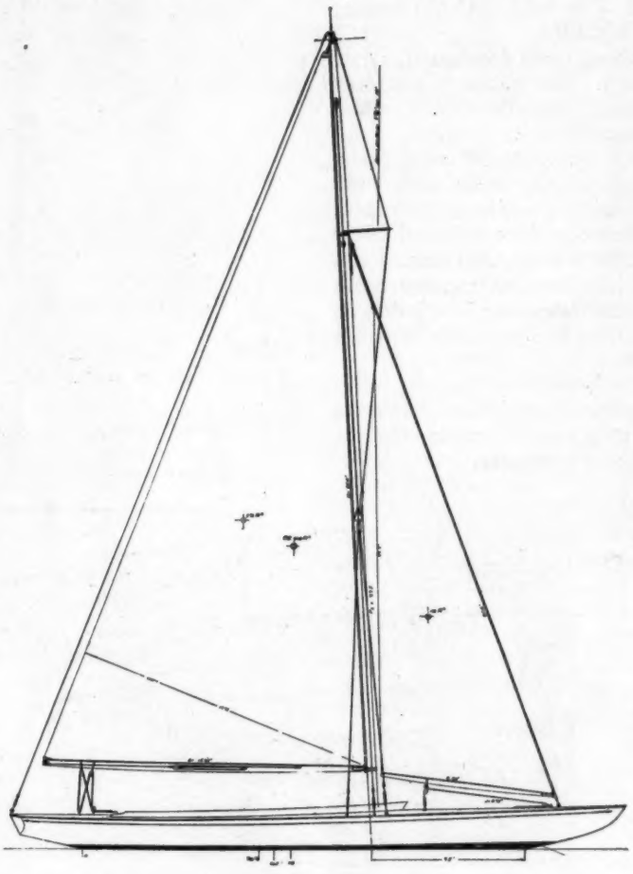
Inboard profile, deck plan and midship section of the Atlantic Coast one-design boat.

The Atlantic Coast One-Design Class

A NEW one-design class which gives every indication of becoming decidedly popular is the new Atlantic Coast One-Design Class, one of which has already been built and tried out on Long Island Sound. The design is from the board of Burgess & Morgan, Ltd., the principal dimensions being as follows: l.o.a. 30′; l.w.l. 21′6″; beam, 6′6″; draft, 4′9″; sail area, 378 sq. ft.

The idea of the designers was to establish, at moderate cost, a class of modern one-design racing craft in as many sailing centers as possible. That the boats have struck the popular fancy is shown by the fact that some 35 boats have already been ordered, to be built abroad, principally by members of the Cedarhurst, Pequot, and Greenwich Beach Yacht Clubs, with a number of other clubs about ready to join the movement.

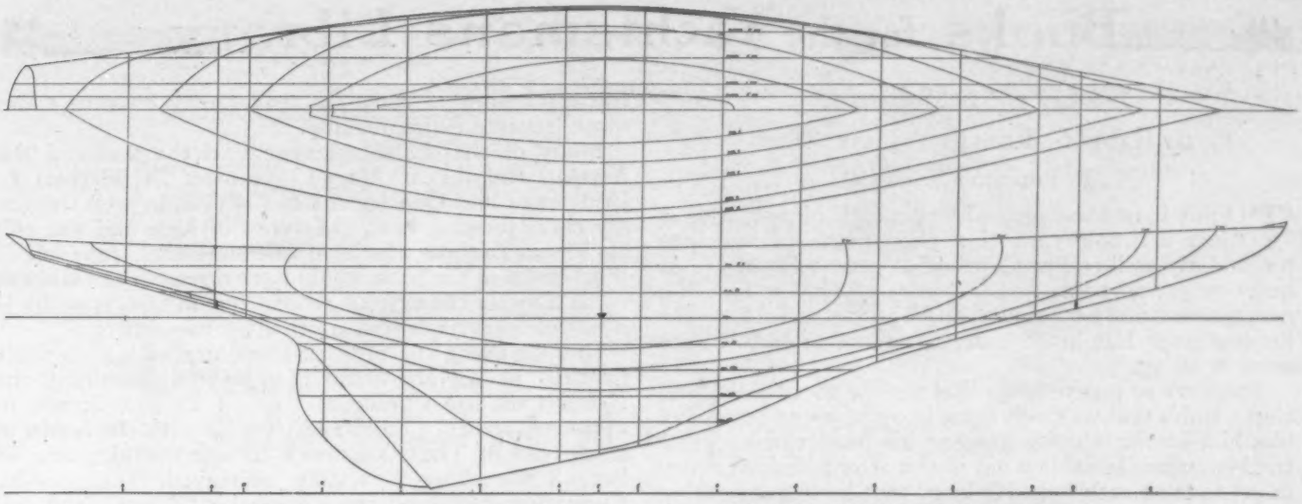
The plans show a half-decked boat of low freeboard, moderate beam and draft, and small sail area. The overhangs are short and water line long, while the sections indicate a boat of rather light displacement. The keel is short, making for quick and sure maneuvering. Those who have handled the little craft say that she is a pleasure to sail under all conditions, and that she has a fine turn of speed in a breeze of wind.



Sail plan.

The mast will be a built-up, hollow stick, rigging is of airplane steel wire, while bronze winches are fitted for main sheet and halliards. The permanent backstay obviates the necessity for runners. The whole boat will be built and equipped in the best manner, the hull being built with oak frames and cedar planking, finished bright, and mahogany trim.

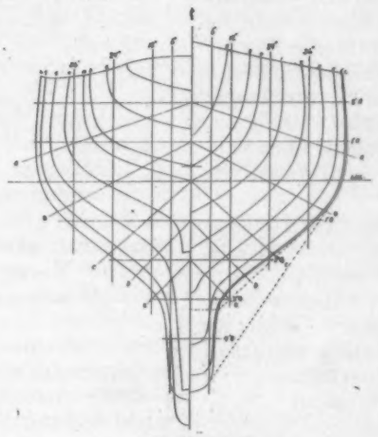
Those who take pleasure in sailing a craft which is light and delicate on the helm, and lively to handle, should appreciate this craft, which was designed with the idea of getting away from the heavy displacement boats now being developed under both the Universal and International rules of measurement. With fleets of these boats scattered along the coast, intersectional racing should flourish, as well as races against Triangles, Sound Interclubs and Class S boats, the latter three classes being close to the Atlantic Coast boats in both size and speed.



Water lines and buttock lines of the 8-metre boat designed by Sparkman & Stephens.

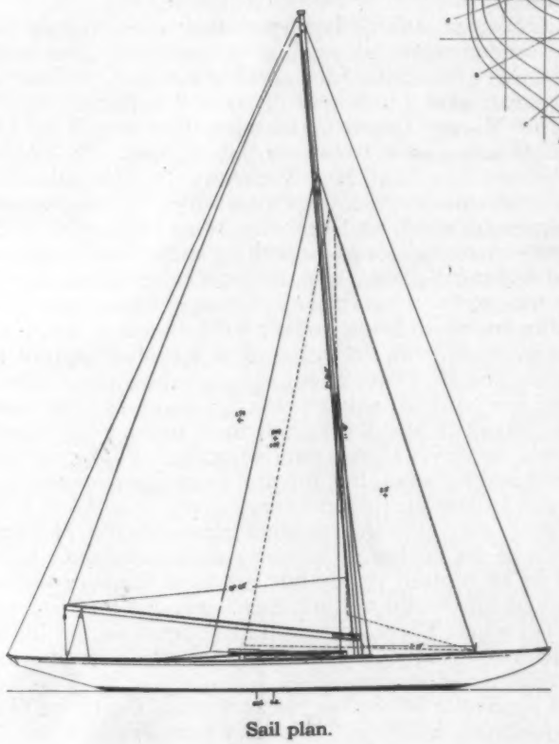
Plans of a Proposed 8-Metre Boat, Designed by Sparkman & Stephens

WITH the announcement that the Seawanhaka Cup would be raced for next year by 8-metre boats, and with five American craft already ordered, it is reasonable to assume that the 8-metre class will be one of the most popular and closely-watched open classes racing next season. The accompanying design of an 8-metre boat, from the board of Sparkman & Stephens, gives a good idea of what we may expect to see developed under the International Rule.



Sections.

This craft is long and narrow, with a fairly hard turn of bilge, her principal dimensions being: l.o.a. 48.99 ft.; l.w.l. 30.24 ft.; beam, w.l., 7.75 ft.; draft, 6.56 ft.; displacement, 18,048 lbs.; sail area, 849 sq. ft. The designer believes that most races in light weather are won by breaks or skill in "weather picking," rather than by speed of boat, and therefore centered his efforts in producing a boat that would sail fast in a good breeze, though not necessarily heavy weather. The ends are rather fine and the midship section fairly large, with low wetted surface. The sail area is good, though no attempt was made to get the maximum.

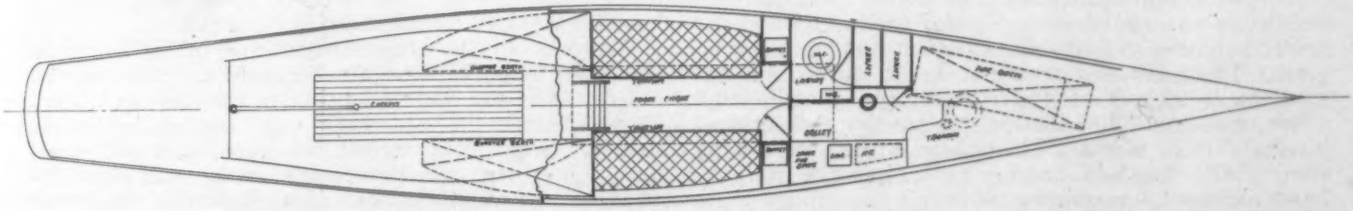


Sail plan.

The sail plan shows considerable rake to the mast, short base line and high fore triangle, the latter having proven most efficient for the Genoa jib.

The cabin plan, showing two quarter berths, two main cabin berths, toilet room, galley, and berth in forecastle, gives an idea of the amount of room in the hull. In the open 8-metre class, however, the rule requires little except three berths, so that if built for racing, she would be well "skinned out."

A glance at the cabin plan shown would indicate that the lack of beam would preclude anything resembling real comfort for cruising, even for short periods.



The interior layout is typical of the maximum accommodations possible in a modern 8-metre boat.

Books for the Yachtsman's Library

The Log of "Bob" Bartlett

By CAPTAIN ROBERT A. BARTLETT

(G. P. Putnam's Sons, 1928)

TO put it in the words of Cap'n Bob himself, this is "just a simple yarn of a plain man — a man not particularly well-equipped, who has seen a lot of life in queer ways; who has had his share of success and discouragement and excitement; and who is grateful for what life has given him in adventure, fun and friends." That sums it all up.

There are so many things that we like about this log of Cap'n Bob's that we don't quite know where to begin. We like him immensely for keeping his head when society tried to make a social lion out of him after he helped Peary to get to the North Pole. He knew that he was something of a "mangy lion," and despite the fact that he would rather be sledding over pressure ice in the Arctic he continued to let himself be lionized so that he could get back to that Arctic with a better expedition.

Something of this old sea dog's philosophy creeps into the pages of his yarn. He wasn't a particularly superstitious person, but he did believe in hunches — and he gives his proofs. Didn't he have a hunch that the *Karluk* would never come back? And there are other instances of the same hunches, the *Corisande* for instance, which was his first shipwreck. Then he has his philosophy on religion, on women and on keeping healthy. All of it is done as only a sailor could do it — honestly and straight from the shoulder, with no apologies.

Personally, we are glad that he never married. He says he's sorry. But as he himself says, it's one reason why he can run off to the Arctic with an easy conscience. And any fellow who can pull through twelve shipwrecks — four of his own ships — should keep on going up in the ice and giving those of us who crave more of the comforts of civilization a vicarious enjoyment of his adventures — if he would admit that they were adventures at all.

Shipmates

By FELIX RIESENBERG

(Harcourt, Brace and Co., 1928)

FELIX RIESENBERG certainly needs no introduction, either as a sailor or as an author. And "Shipmates" of the man who penned "Under Sail," "Vignettes of the Sea," and more recently "East Side West Side," should prove well wearing friends to the rest of us who like blue water.

This most recent publication of Riesenberg's is a collection of sketches of the sea formerly printed, for the most part, in the "Nautical Gazette." We are tempted to believe they were something in the nature of potboilers, for their quality as a whole does not come up to what we expected to find.

As is natural in almost any collection of short sketches written at various times and under various moods, the reader is bound to find some excellent and some not so good. There will be a certain suspense, enthusiasm and amusement, such as is found in the "Lights that Failed," a tale of sailing lights filled with water by a deck hand leaving ship in disgust. Then there is the entertaining story of the chap who had an A. B. discharge from the *Essex* and used it to gain entrance to a law college where an A.B. of another quality was a requirement for entrance. But after some of these the reader may have to stand some less interesting reading.

Many of the characters once trod the decks of the *Newport* and the *St. Mary's*. We meet Dr. Herbert L. Bridgeman and Quartermaster Clausen, in well written sketches, showing both the types of men and the call of the sea. To those who have sailed on either of the school ships much of the book would have a greater reminiscent value than for the average reader, for, in fact, it really is a sort of mess room reminiscence by Riesenberg.

Bits depicting the unusual speed and skill sometimes required at sea are found in a section describing the *Newport* on one Christmas Eve off Palafox Street, in Pensacola, when a hurricane blew up with the hooks in a soft bottom. The character of the men who ably warped her off the shore is vividly portrayed. Then, again, navigation, rain, and the use of the "dipsy" lead call forth interesting bits of philosophy.

Lacking in continuity, as any such collection does, the book is not one that will encourage long evenings of reading. It is not Riesenberg's best, but there are parts that will well bear reading.

The Perfect Ship

By WESTON MARTYR

(Ives Washburn, 1928, $3.50)

HAVE you ever picked up a book without any particular relish for reading it, and then after half a dozen pages found it such a corking tale that you put the book down with a feeling of dismay? *The Perfect Ship* by Weston Martyr struck us as being just that kind of a book. It was a treat from first page to last.

The sub-title "And How We Built Her" is misleading. In the first place the author's activities in her construction seemed confined largely to lying on a pile of 50-pound pigs for ballast and watching skilled Nova Scotians wield awkward adzes and turn out a boat. To be sure, he sent too many telegrams to "George," who was up in Halifax trying to bring down a keel, but that was about his line, aside from dreaming of this perfect ship of his. But the way he writes about the growth of that little 45-footer is a caution, and his description of how the entire little village of Sheldon turned to in making that yacht, the first they ever turned out, is fascinating. They worked by eye and by hand, but judging from this account nothing was lacking in the final result.

The reader gets an excellent slant on the particular foibles of the author in planning an ocean racing yacht. And as he himself points out, some of them turned out well and others did not stand the test of heavy seas and gales of wind. There is not too little detail on her lines or on her interior layout, nor is there too much detail to bore the uninitiated landsman.

Of particular interest is the account of the cruise of the *Southseaman*, following her completion. We can visualize many arguments by ocean racers on points of rigging and handling a boat as brought up in these pages.

We have only two regrets: one, that in the Bermuda Race the "scientific navigator" aboard the *Southseaman* failed to find the islands, so that to this day we do not know whether she was really good enough to be the "perfect ship." And, second, we regret that she ended up the way she did. But read that for yourself. Certainly no one who loves boats should find this book at all uninteresting.

J. G. S.

Under the Lee of the Longboat.

by Cap Stan

LONG distance race fans will be glad to know that the proposed race from New London to Gibson Island next June is an assured fact. The Gibson Island Club will stage the affair, and the start will be either on June 22nd, the day after the Yale-Harvard boat races, or the following week-end.

The Corinthian Y. C. of Philadelphia, which staged the race to Cape May last year, wants to stage a duplicate affair this year, also starting June 22nd or thereabouts. Of course, two races, starting from the same port on the same date, are out of the question. Inasmuch as the Gibson Island crowd was first in the field, I would suggest that the Corinthians reverse their course — run their race from Cape May to New London, start it the week before the Gibson Island affair, and land the racing craft at New London in plenty of time to take in the Yale-Harvard races and give them a chance to rest up and get ready for the Gibson Island affair. If not, it would be better if the Corinthians waited for another season to roll around.

* * *

Small one-design classes seem to be going stronger than ever. The Sound Interclubs and Triangles are holding their popularity. Likewise, the Victories and the Herreshoff S Class. A number of clubs will undoubtedly adopt the new Atlantic Coast boats. Edgartown has four or five boats building, duplicates of the design which appeared in YACHTING for May, 1928. Eight or ten members of the Beverly Y. C., of Marion, are slated to build a class, the design of which has not yet been selected, and Mt. Desert Island will have a new class too. As all these classes are practically the same size craft, the opportunities for intersectional contests seem boundless.

* * *

The Barnegat tars, sailing in their scows against Canadian crews, get licked. Marblehead veterans, racing in their home waters, in their own boats, take a beating from another team of Canadian skippers. And the Sound Interclub sailors, sailing in home waters, bow to the Bermudians. Quite a season for the Britishers, what?

* * *

Although the measurement formula used in the Bermuda and Transatlantic races is basically the same as that used in the Fastnet Race, the results are quite a bit different. For instance, in the Spanish Race, *Mohawk* gave *Niña* quite a bit of time allowance, while in the Fastnet Race the exact reverse was the case. This is due partly to the fact that over all length was used in the Spanish and Bermuda races, while length between perpendiculars was used in the Fastnet affair. Also, the British use a different method of measuring sail area than we do.

Obviously, there is something wrong. The rule makers should get together and iron out these differences, making both rules the same, so that anyone building a boat to one rule would be assured that his boat would measure the same under both. International competition in ocean races is increasing. It will be measurably helped along when this difference in measurement and time allowance is abolished. If it isn't, it may come a bit of a cropper.

* * *

Imagine rolling to work after a Columbus Day celebration at Lloyd's, to be met with the following epistle:

> CAP STAN:
>
> There are no ink slingers on Great South Bay, L. I., and you have a way of treating them with as much disregard as you can get away with it. It would pay you to take a look-see some Saturday or the first week in August and see a bunch of sailors. We claim we can trim any of the sailors on the East Coast or anywhere, and we know more than any ink slinger about the game. Give us a little attention, Cap.
>
> ALF LYNN

Well, Alf, some rather sorrowful experiences have taught me that no section of this or any other country has a monopoly on good sailors, wherefore I'm perfectly willing to believe that Great South Bay has its quota of real tars. But as for their being so much better than the rest — not so fast, old top. The place to settle that momentous question is in a race, not on this page. So, how would you like to meet this ink slinger in a series of match races, to be sailed in one-design boats, shifting boats after each race? Again, how would you and a couple of your Great South Bay skippers like to meet a team of ink slingers, in a series of team races under similar conditions? These races should not be hard to arrange, either in some of your one-design boats on Great South Bay, or in some Long Island Sound one-design class.

Sorry to have neglected you in the past, Alf. However, here's your chance to get plenty of attention. What are you going to do about it?

Colleen Wins Star Class Trophies

(*Continued from page 42*)

from start to finish and was leading the series also at the close of the day, when Jack Robinson piloted the *Little Bear* in ahead of the defender. The final race was uneventful. *Colleen* had merely to cover *Mackerel*, and Mr. Bedford accomplished this in the most approved manner. While he was doing so Tim Parkman won the race and Garland Miller finished fourth, thereby taking — by consistent sailing — a well-earned third place in the series.

The first mad scramble of 30 boats in the Lipton event was intended to be over a windward and leeward course.

Mackerel, owned by Harold Smith, was the defender and runner-up in this year's Star Class Atlantic Coast Championship.

Soon, however, it became a merry-go-round, which *Colleen* won, followed by Dr. Wise's *Starfish*, a local boat and one which played quite a part in this series.

Iscyra II won the next Lipton Race, going into the lead as it began to blow. Right behind Elder came the Bedfords, father and daughters, bringing about a tie for second in the point score between the *Ardara* and *Iscyra II*, while *Colleen* still headed it by a healthy margin. What was to have been the final contest of this series, developed into a race between *Colleen* and the time limit, and the latter proved to be the one thing that *Colleen* could not beat that week.

The resail on Sunday would also have been no race, had not the committee rushed a launch up to the weather mark and shortened the course at that point. What little breeze there had been died out completely and the majority, who had held for the mark, drifted past it far to leeward. They anchored or tried in vain to stem the ebbing tide and finally abandoned the race. Only five boats were able to get across the improvised line. *Juno*, stern first, drifted over and won the race and third place in the series. Then came *Colleen*, *Gar*, *Little Bear*, and *Starfish*. *Iscyra II* and *Winsome* could have made it, for they had stood far out from the first, leebowing the tide, but due to an incorrectly repeated message, they accepted a tow within a short distance of the line, believing the race called off. This incident cost *Iscyra II* a tie for second place with Dr. Wise.

The special races can be described briefly. *Ardara* always went out in the lead, followed by *Iscyra II*. Then *Blue Fish*, *Starfish*, and sometimes *Gar*, would come into the picture. *Ardara* managed to keep within the prize money, but the other Long Island yacht invariably fell back as the wind lightened and one of the local boats would win, Sifford Pearre being the most consistent.

Central Long Island now has two legs on the Pandora Trophy and needs but one more to win it permanently. In spite of this fact, Mr. Bedford suggested at the final banquet — subject to the approval of the Association and the Chesapeake Bay fleet — that the series be held at Gibson Island again in 1929. He stated that it would be a shame for the event to leave such hospitable shores and a place so well suited for it. This reflected the sentiments of all the visitors, who went away highly elated over the prospect of being able to spend another week next year in Maryland's fairyland.

ATLANTIC COAST CHAMPIONSHIP

Fleet	*Yacht*	*Skipper*	*Crew*	*Points*
Cent. L. I. Sound	*Colleen*	F. T. Bedford	B. Cunningham	24
Chesapeake Bay	*Mackerel*	H. W. Smith	W. L. Henderson	21
Hampton Roads	*Tomboy II*	J. G. Miller	E. G. Dodson	18
West. L. I. Sound	*Little Bear*	J. R. Robinson	J. W. Dayton	16
Delaware River	*Juno*	F. W. Robertson	R. W. Robinson	14
Gravesend Bay	*Fleet Star*	T. D. Parkman	Thos. Parkman	12
Massachusetts Coast	*Nor'n Light*	Louis Curtis, Jr.	Mrs. Curtis	12
Peconic-Gardners	*Winsome*	H. Edwards	Ed. Dunlevy	6
Elk River	*Chipmunk*	C. J. Stewart	Mrs. Stewart	2

Inland Lake Scows Provide Fine Racing

(*Continued from page 48*)

On Tuesday a fresh northwester, which in puffs reached 30 miles an hour, made fast work of the races and caused many capsizes, six in the E Class and seven in the C Class. The windward and leeward course of 12 miles gave the "A" boats a fine chance to test out their capacities in fresh breezes. *Hummingbird* (Elmer Stevens) won the Schmidt Trophy and *Little Smoke*, of Lake Geneva, took second place. *Two Sallies* again landed in the money in third place. *Sea Witch*, of White Bear Lake, *She Rolls Her Own*, of Lake Geneva, and *Skip Away*, of Pistakee, led the "C" boats home. In the E Class *Nantuck*, of Neenah-Nodaway, won the Pelouze Trophy. *No Name II*, of Lake Geneva, and *Fan I*, also of Lake Geneva, were next to get the gun.

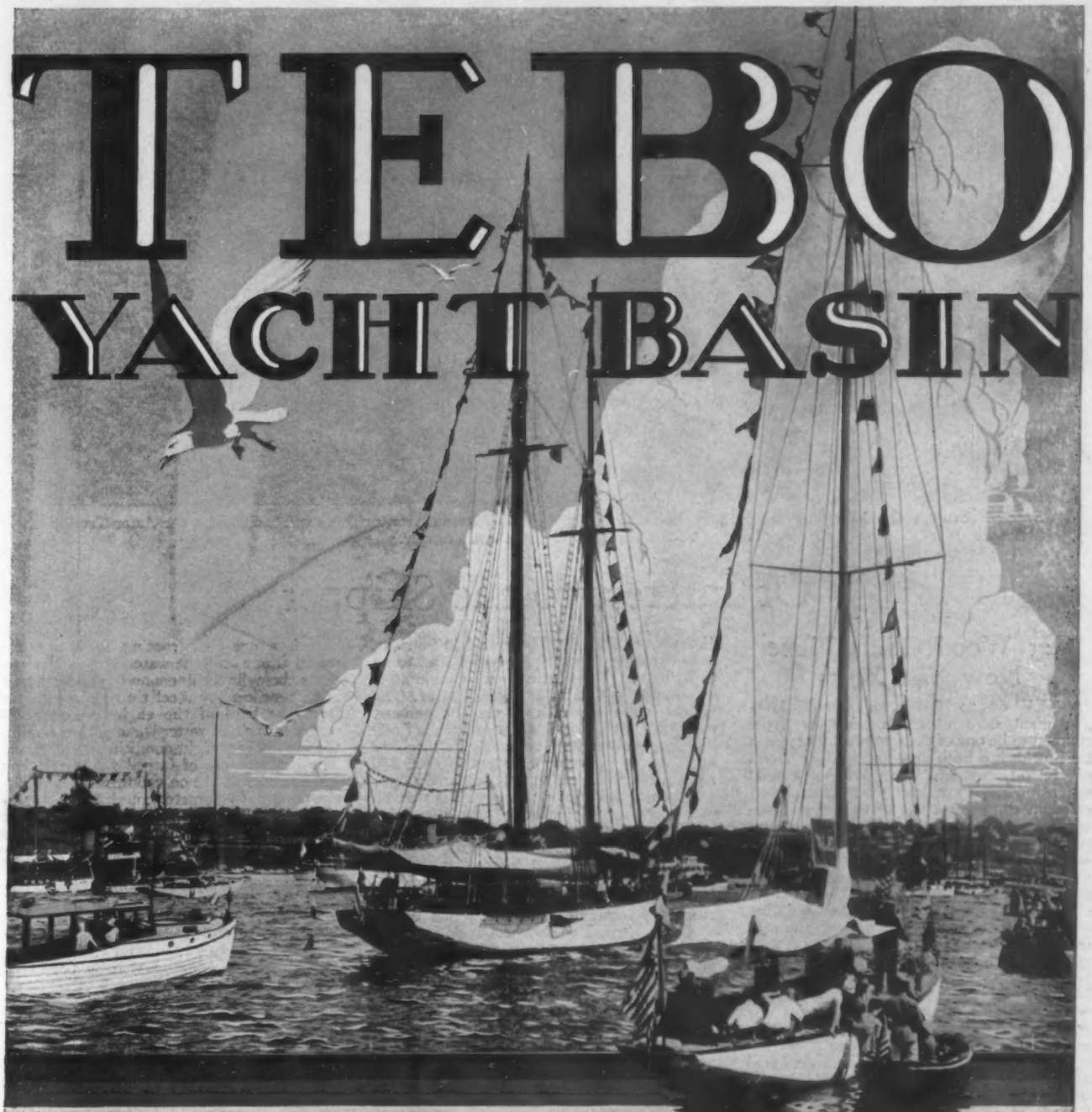
Winds were light on Wednesday and no upsets marred the day. The courses were all triangles. *Viking*, of Lake Geneva, sailed a fine race and won, followed by *Privateer*, also of Lake Geneva. *Two Sallies* again placed among the leaders, a dangerous competitor in any going. In the C Class *Klenup II*, of Pistakee, *Nuisance*, of Lake Geneva, and *She Rolls Her Own* led the cat boats around the marks. The winners in the small sloops E Class were *Mistral IX*, of Pine Lake, *Ruby Yacht*, of Pewaukee Lake, and *No Name II*, of Lake Geneva.

Thursday, August 23rd, was a day of varied conditions climaxed by a hard shower, just as the committee boat was leaving the clubhouse dock for the "A" boat race in the afternoon. This race was a beat to the end of the lake and a broad reach to the finish line. *Two Sallies* made the weather mark with a safe lead and was never in danger. She carried a ballooner down wind without the pole until part way home, when she boomed it out and romped across the line well in the lead. *White Cap III*, of Delavan, sailed through the lee of the leaders and nosed out *Hummingbird* by less than ten seconds at the line. In Class C *Rokniben*, of Lake Geneva, *Nuisance* and *She Rolls Her Own*, all Lake Geneva boats, led over the finish line. *Spumanti* and *Mistral IX*, both of Pine Lake, and *Albatross*, of White Bear Lake, took honors in the "E's."

Two Sallies, a consistent performer in all weathers, won the championship, taking two first places and three thirds. Light canvas was cleanly handled and no errors in judgment were apparent. *Hummingbird* was also a consistent performer and deserved her second place. In the cat boat class *Klenup II* won the cup. To have come through a race week against 47 competitors means much. Peterson certainly deserves all the credit. *Mistral IX*, sailed by Robert Friend and hailing from Pine Lake, won the E Class championship.

It was surely as fine a racing episode as could have been arranged. Should you have the opportunity to view one, do not miss the chance.

TEBO YACHT BASIN



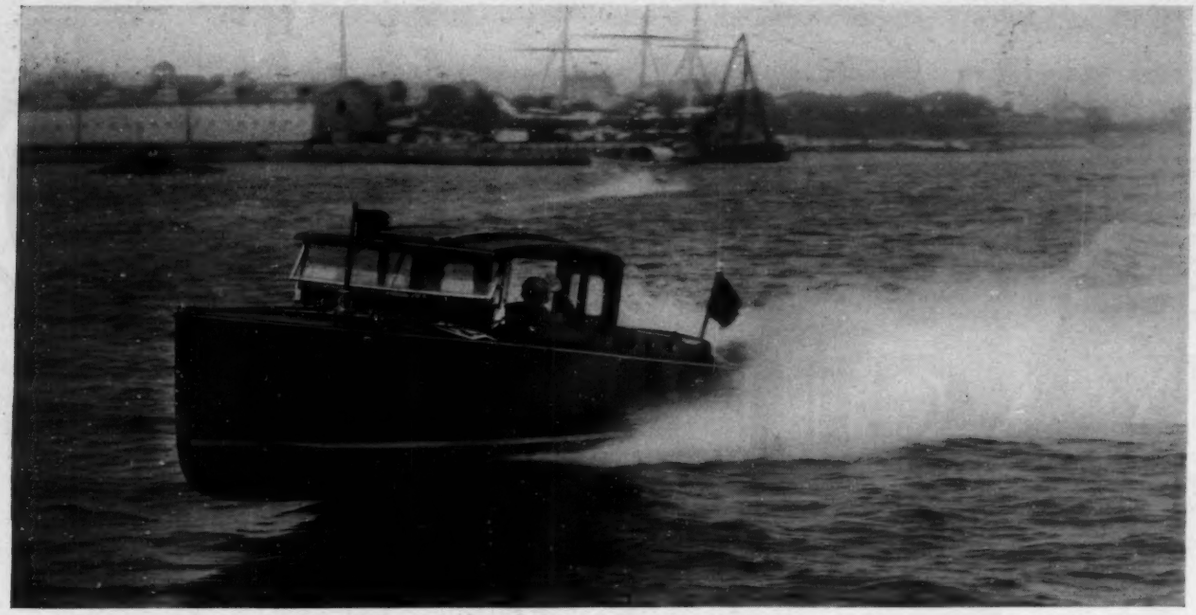
THE value of Tebo Yacht Basin Service to owners of yachts lies in our straightforward contractual relation with a one point contact.

Owner satisfaction is assured through having complete facilities for all operations that have to do with repair, reconditioning, overhaul and conversion located within the confines of this yard, and conveniently accessible for owner supervision within 15 minutes of lower Manhattan.

TODD DRY DOCK ENGINEERING AND REPAIR CORPORATION

Foot of 23rd Street *Brooklyn, New York*

TODD



Black Beauty, **a Gar Wood sedan runabout. Powered with a 125 h.p. Kermath motor this stock model won the Astor Trophy at the Newport Regatta last summer.**

Of Interest to the Skipper

Gar Wood Offers Three New Fast Boats

A NEW 60- to 70-mile an hour displacement boat of the monoplane type, claimed to be one of the fastest of its type in the world, has been designed by Gar Wood of Detroit, and will be built upon special order for any American yachtsman interested in owning a craft of that speed, according to Arthur J. Utz, New York representative for Gar Wood Boats. This boat will be about 35′ long, 7′ beam, powered with a single 800 h.p. motor, and will have a guaranteed speed of 60 m.p.h.

Gar Wood is also designing and building at the present time a 50′ express commuter of the displacement type. This boat is powered with a pair of 400 h.p. 12-cylinder Gar Wood Marine Engines and with its 10′ 6″ beam, is capable of doing better than 40 m.p.h. This same boat can be put out with a pair of 800 h.p. motors and do in excess 50 m.p.h.

Anyone desiring a hydroplane designed after the lines of *Miss America VII*, holder of the world's present speed boat record — 92.838 m.p.h., can now secure one. A guaranteed speed of 90 m.p.h. will be given.

These special boats are to be built by Gar Wood, Inc., in addition to their present line of 28′ open and sedan type stock runabouts and their 33-footer.

The New Speedway Diesel

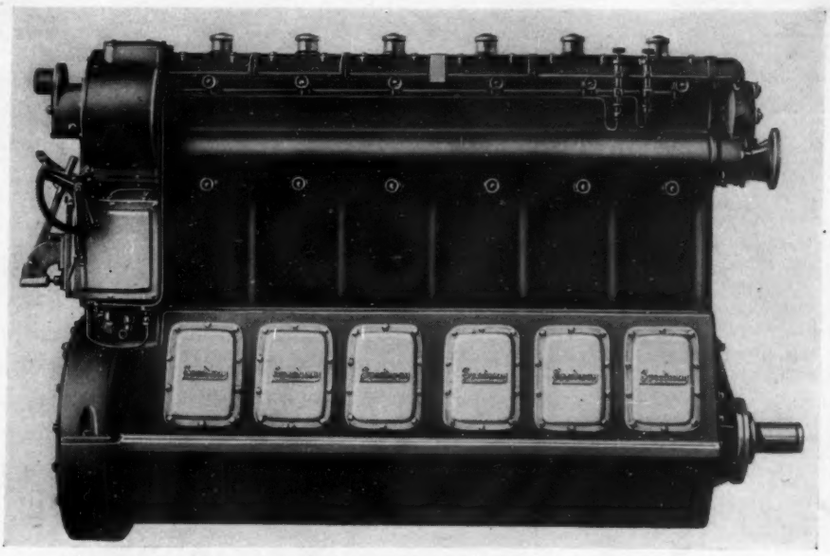
It has been apparent for several years that the ultimate solution for high class yacht Diesel engines would be a solid injection, four-cycle type. The design and construction of the Speedway Diesel, built by the Consolidated Shipbuilding Corporation, in Morris Heights, New York, embodies the experience of many years in this field. The designs for the new engine were prepared by O. D. Treiber, who has designed and built 35 different types and sizes of Diesel engines.

This engine, designed particularly for high class yacht service, 6-cylinder in-line, direct reversible, 8½″ bore and 11″ stroke, is designed to run at high speeds and to be as light and as practical and simple as it is possible to make a Diesel engine. The weight, complete with oil coolers, exhaust manifolds with oil and water pumps, is 7,600 lbs. It operates very smoothly and quietly and can be operated continuously at 850 r.p.m. at which speed it will develop 350 h.p.

A unique feature of this engine is that no cast iron is used. The frame is made of aluminum except where salt water is circulated. For such parts as cylinder heads, cylinder liners and water jackets where salt water is circulated for cooling purposes, a special ferrous metal, of the same strength as cast steel and impervious to the action of sea water, is used. The flywheel is entirely enclosed within the housing, as are all other moving parts. Force feed lubrication supplies lubricating oil to every bearing surface. The base is a one-piece casting, as is also the center frame and the water box which supports the cylinder liners and cylinder heads. High tensile alloy steel tie rods are passed from the base of the engine through the center frame and water jackets, thus holding the engine in a rigid condition at all times. The bearings are of forged steel, full shell.

The controls are on the forward end, also the gauges, tachometers, and pyrometer instruments. Reversing can be accomplished in approximately five seconds. The engines will be furnished with either a flat roller double self-aligning, full floating thrust bearing or a Kingsbury thrust as may be desired.

This engine, it is believed, will fill a long felt need for a light weight, high speed Diesel engine free from vibration with all the smoothness in running that is typical of Speedway engines.

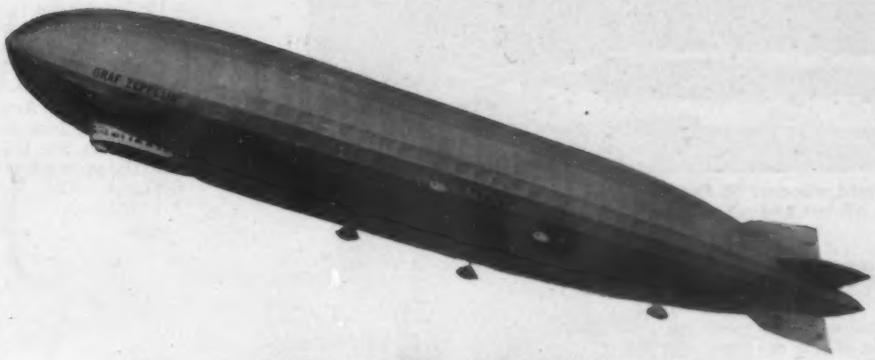


The new Speedway six-cylinder solid injection Diesel engine for yacht use.

MAYBACH

MARINE MOTORS

Our latest installation:



FIVE 550 H.P. MAYBACH
MARINE MOTORS IN THE
"GRAF ZEPPELIN"

FOR 20 YEARS MAYBACH ENGINES HAVE POWERED ZEPPELIN AIRSHIPS. THEIR RELIABILITY AND ECONOMICAL OPERATION HAVE WON US ALSO MANY FRIENDS AMONG YACHTSMEN, WHO HAVE INSTALLED THEM IN YACHTS AND BOATS OF EVERY TYPE AND DESCRIPTION.

SOME OF THIS YEAR'S INSTALLATIONS ARE:—

THREE 550 H.P. ENGINES IN MR. ZIEGLER'S 101' YACHT *'GEM'.

TWO 150 H.P. LIGHT DIESELS IN MR. ANDERSON'S *'MOANA II'.

TWO 150 H.P. DIESELS IN MR. LEFEBVRE'S 'VIRGINIAN II'.

TWO 110 H.P. ENGINES IN DR. SEDLMAYR'S *'CHICAGO III' AND MANY OTHERS IN THE U. S. A., CANADA AND OTHER COUNTRIES.

*DESIGNED AND BUILT BY FR. LUERSSEN

550 H.P. DIRECTLY REVERSIBLE 12-CYLINDER MARINE ENGINE, TYPE VL-2 (2450 lbs.).....$18,500

150 H.P. 6-CYLINDER LIGHT WEIGHT FULL DIESEL ENGINE, TYPE G4-a (2650 lbs.).....$10,850

110 H.P. 6-CYLINDER GASOLINE MARINE ENGINE, TYPE S5 (1085 lbs.).....$3,150

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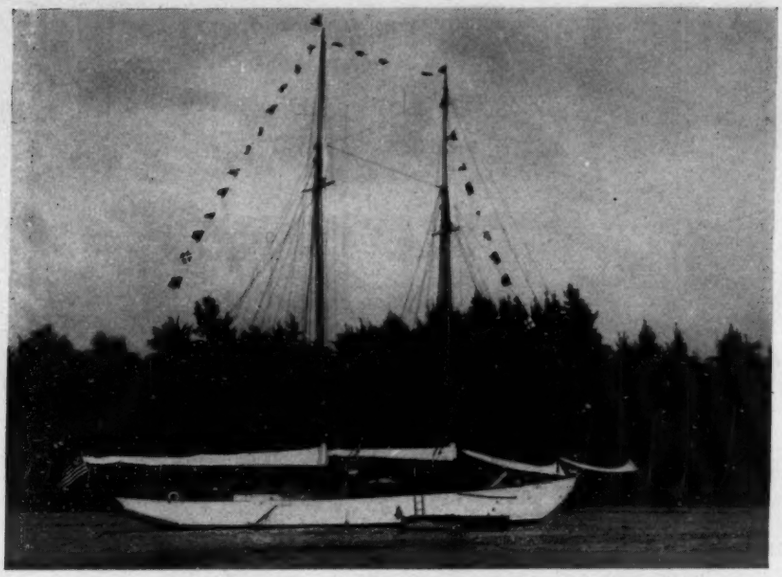
F. W. VON MEISTER, GENERAL AGENT — 578 MADISON AVENUE, NEW YORK



Osprey III, a centerboard schooner 86 feet long over all owned by C. R. Runyon. Designed by C. D. Mower and powered with a 6-cylinder Sterling Chevron.

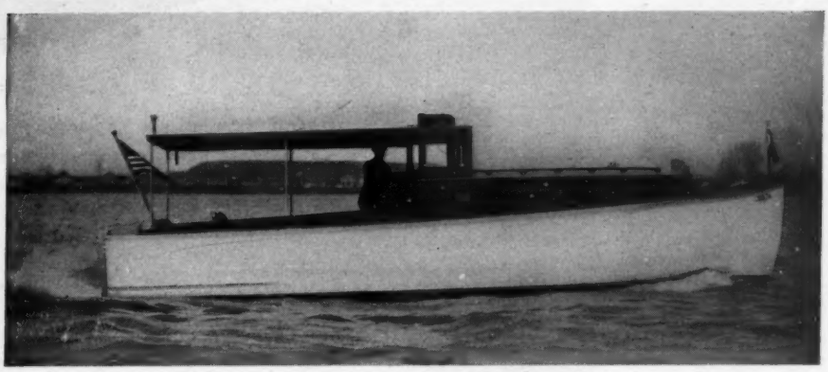
Outboards Make Records at Wilmington

THE racing season of 1928, in the East, was brought to a close in a blaze of glory at Wilmington, N. C., on October 5th and 6th, when the National Outboard Championships were run, under the auspices of the Frying Pan Power Boat Association. An unusually large and high grade fleet of outboard racers was on hand and some of the best racing of the season was seen, over courses four miles in length, and some new records were hung up for this distance in the various events. *Bumble Bee*, a Herbst hull with a Lockwood motor, won all the Class A and B events. *Rubber Baby II*, a Herbst special rubber bottom hull with a Johnson motor, took the Class C Amateur, Free-for-All, and Championship events, and set a record of 35.55 for the distance. *Orange Blossom*, with an Elto Quad, won the Class D Amateur and Free-for-All races in the best time of the regatta, 6 m. 29 sec. for the four miles, while *Uniplex*, with the same make of motor, took the Class E Free-for-All.

The Liggett "34"

The Liggett "34," produced by A. G. Liggett & Son Company, Wyandotte, Mich., is proving one of the most popular cruisers on the market. It is a compact, smart, trunk cabin cruiser, with accommodations for four. This cruiser is built on a standardized production basis and provides a most attractive and staunch boat.

The model shown in the illustration is powered with a Kermath 150 h.p. motor.



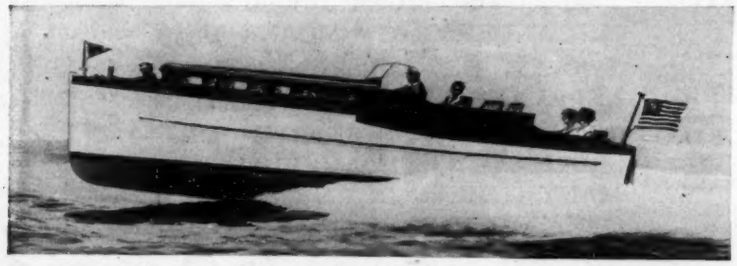
The new Liggett 34-foot trunk cabin cruiser.

Banfield Adopts Lux

Last year the Banfield Sea Skiff Works installed many Lux Systems on their famous 32-ft. Sea Skiffs. Next year Lux will be a standard item of equipment on every Banfield "32."

More and more yacht builders and owners are turning to the Lux System for protection from fire. Lux not only is approved by the Underwriters' Laboratories for fire extinguishing on pleasure craft, but it has proved its worth in service.

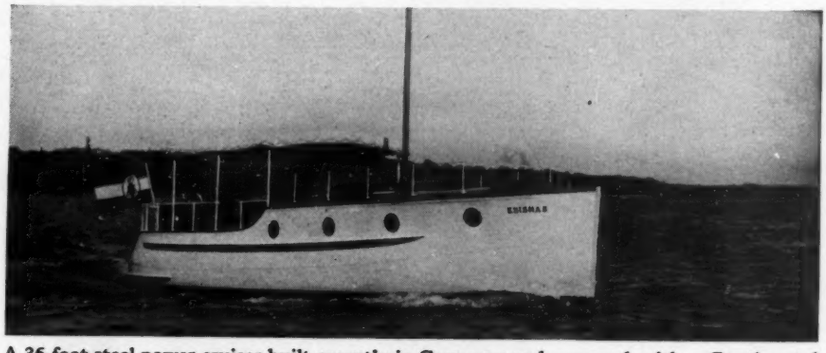
This system is standard equipment on Staples, Johnson cruisers and on the Lawley 68-ft. cruiser as well as on the Banfield "32." Hundreds of installations have been made in the past two years on runabouts, cruisers, auxiliaries, and larger yachts. Among the more famous boats equipped with the Lux System are the new *Nourmahal*, the *Savarona*, *Cressida*, *Delphine* and *Elena*.



The Toppan Llenroc sport cruiser *Barjolero*, owned by Robert Shepard. She won the Vanderbilt Trophy at Newport. Powered with a 6-cylinder Sterling.

Electric Hoist for Small Boats

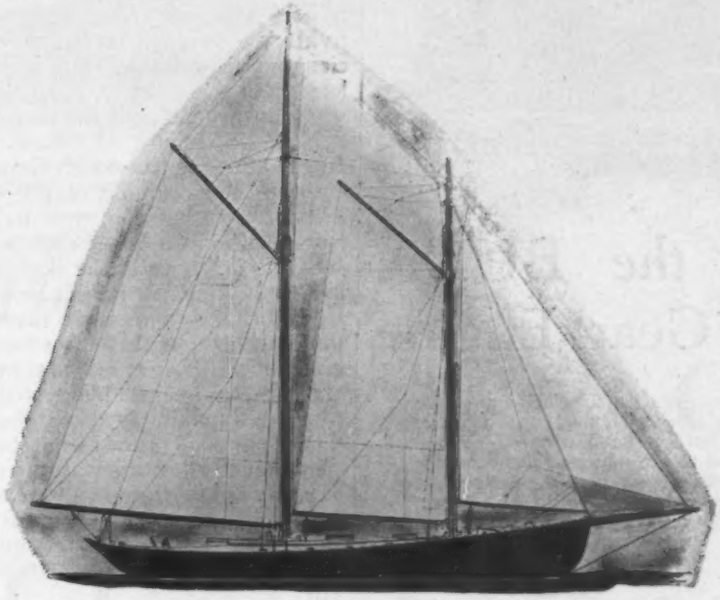
A valuable piece of marine equipment is now being introduced to small boat owners by the Monnier Brothers Machine Company of Algonac, Mich., in the new Algonac boat hoist. The new machine, the only electric hoist on the market for raising small craft out of the water, eliminates the back-breaking effort and time spent in raising or lowering the boat by chain falls or other equipment. (*Continued on page 112*)



A 36-foot steel power cruiser built recently in Germany and powered with a Continental Fay & Bowen engine. She makes 10½ m.p.h.

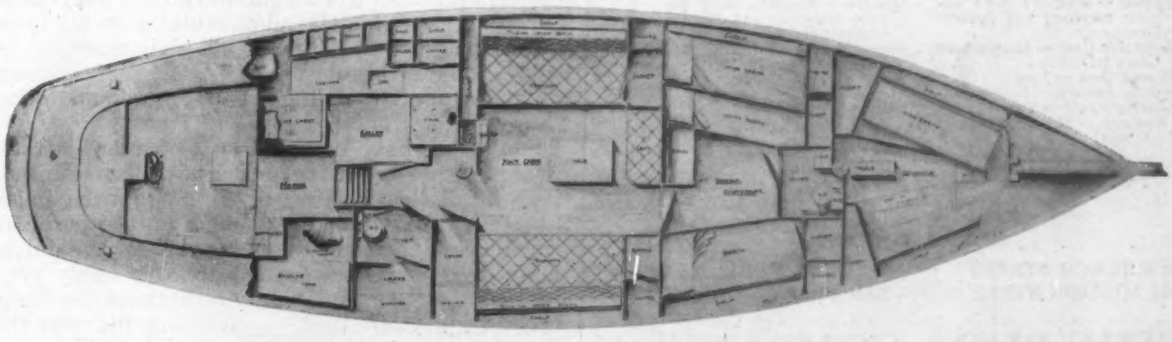
A REAL CRUISING SCHOONER

DESIGN NO. 390



About which Mr. Alden says:

"I designed this boat for my own pleasure, being what I consider an ideal cruiser to be run by one paid hand. It is now building and will be ready for spring delivery. 50′ o.a. x 40′ w.l. x 14′ beam x 7′ 1″ draft. Powered with an F-4 Scripps giving a speed of 8 m.p.h. She is plainly but strongly built and complete in equipment. The galley is aft with separate entrance, a large double stateroom forward, two owner's toilets and forecastle with toilet. She is designed to sail at a very small angle of heel, yet should be fast, especially in rough waters and able to go anywhere with comfort."



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Naval Architect , *Yacht Broker*

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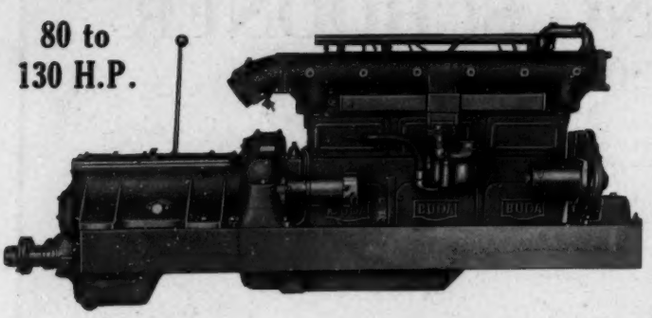
80 to 130 H.P.



Investigate the BUDA Reduction Gear Engine

Here is a new type of Reduction Gear Engine to meet the demand for slow propeller speed combined with a higher engine speed. The reduction gear and reverse gear are built in one unit and fitted to the motor as one complete assembly. The Buda reduction gear is particularly quiet and does not give an objectionable noise to the boat owner. Available in the following models:

Model BMR-6
80 H.P.

Speed — 1,000 to 1,800 R.P.M.
Displacement — 386.4 cu. in.
Bore 4" — Stroke 5½"
No. of cylinders — 6
Diameter of crankshaft — 2 ½"
Connecting rods — Chrome Vanadium Steel
Ignition — Magneto (with impulse coupling) and Battery Distributor
Reduction Gear — Herringbone Gears 2-1/20 to 1
Reverse Gear — Joes
Storage Battery — 6 volt
Starting Motor — 6 volt
Generator—6 volt, 125 watt
Oil Cooler

Model BMAR-6
85 H.P.

Speed — 1,000 to 1,800 R.P.M.
Displacement — 411.1 cu. in.
Bore 4⅛" — Stroke 5½"
No. of cylinders — 6
Diameter of crankshaft 2 ½"
Connecting rods — Chrome Vanadium Steel
Ignition—Magneto (with impulse coupling) and Battery Distributor
Reduction Gear — Herringbone Gears 2-1/20 to 1
Reverse Gear — Joes
Storage Battery — 6 volts
Starting Motor — 6 volts
Generator — 6 volts, 125 watt
Oil Cooler

Model GMR-6
115 H.P.

Speed — 1,000 to 1,600 R.P.M
Displacement — 572.5 cu. in.
Bore 4 ¾" — Stroke 6"
No. of cylinders — 6
Diameter of crankshaft 3"
Connecting rods — Chrome Vanadium Steel
Ignition — Magneto (with impulse coupling) and Battery Distributor
Reduction Gear — Herringbone Gears 2-1/20 to 1
Reverse Gear — Joes
Storage Battery — 12 volts
Starting Motor — 12 volts
Generator — 12 volts, 160 watt
Oil Cooler

Model GMFR-6
130 H.P.

Speed — 1,000 to 1,600 R.P.M.
Displacement — 638 cu. in.
Bore 4 ¾" — Stroke 6"
No. of cylinders — 6
Diameter of crankshaft 3"
Connecting rods — Chrome Vanadium Steel
Ignition — Magneto (with impulse coupling) and Battery Distributor
Reduction Gear — Herringbone Gears 2-1/20 to 1
Reverse Gear — Joes
Storage Battery — 12 volt
Starting Motor — 12 volt
Generator — 12 volt, 160 watt
Oil Cooler

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THE BUDA COMPANY

Established 1881

HARVEY (Chicago Suburb) ILLINOIS

BUDA MARINE POWER

A Leak in the Bottom Is Worth Two in the Deck

(*Continued from page 66*)

properly built at the start. The average job acts like a sieve, for the simple reason that there are so many weak spots where trouble may develop. In Figure 10, these spots are pointed out at A, B, C and D. At A the water will run down between the deck and the frame. At B it will be certain to blow up and around the edges no matter how tightly the skylight is clamped shut. At C there is insufficient frame under the glass and a poor putty may cause a leak to develop. At D, the point of the hinge, the water will run through as if the place were wide open.

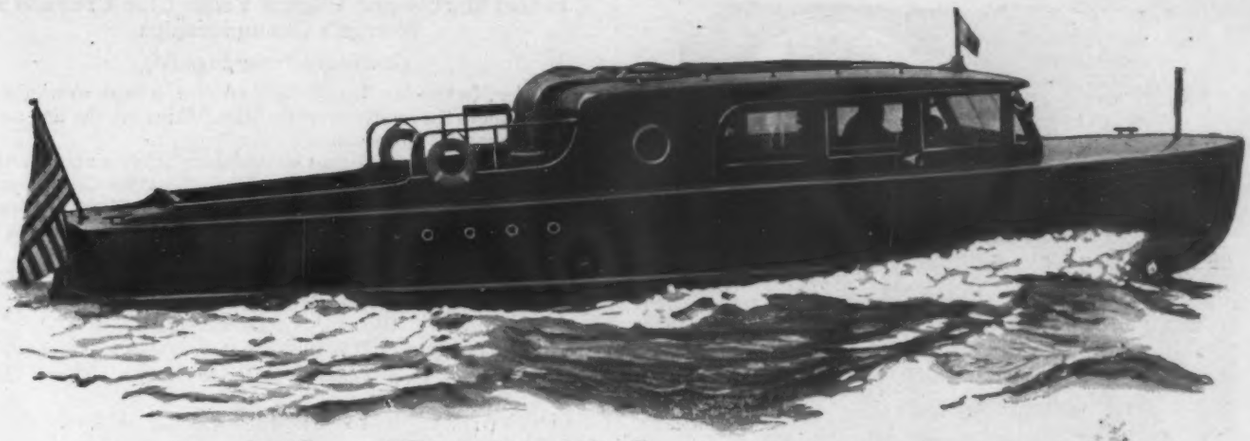
Now, in Figure 11, these troubles have vanished. Notice that the canvas on the deck is brought inside and up onto the coaming of the skylight, thus preventing water from getting in over it. Where the skylight itself rests on the frame, one edge is slightly raised, so that it sets into a groove in the skylight. This will prevent leakage, no matter how hard it blows, provided the skylight is tightly closed. Sometimes metal strips of various shapes are used here, as they are stronger and will not be apt to crack off. At E, in this figure, we find that the frame under the glass has been widened, making it possible to use more putty and making it more difficult for the water to run in. The lower edge of the frame should have a couple of scuppers in it to allow the water to run off. Otherwise the edge of the window frame will make a small dam which may hold enough water to permit it to work through the joint between wood and glass. A gutter is installed under the hinge joint, open at the ends, to permit the water to run out.

In Figure 12 is shown a type of combination hinge and gutter which has been used. This is made of two pieces of brass tube, one inside the other, arranged so that the hinge motion may be secured; yet at the same time a solid surface is presented to the water. Figure 13 shows another rig, where half of a piece of copper or brass tube is secured to the stationary part of the frame while the other part sets up in a groove in the actual skylight frame. When the skylight is open, the water will run into the tube and when it is closed it will, of course, do likewise, preventing leaks.

Figures 14 and 15 show how a hatch may be made watertight. The construction is much the same as in the other cases and, in Figure 14, at point A, it is more than possible that water will come through. Of course the pieces of the hatch, at B, will each cause a leak unless properly made up. In Figure 15 the deck has been covered with canvas, brought up inside and tacked fast. The top of the hatch is made up of tongue and groove material tightly laid together, with a thread of caulking cotton or oakum laid in the groove before each plank is made up. Such a hatch should be absolutely tight. The same construction would also apply to sliding hatches, but do not forget that water will blow uphill easily.

Port lights have been known to cause difficulties because of the water getting in back of the flange and seeping down inside the planking, or dripping off the hinges into a berth. Port lights having flanges on the outboard side should be well made up in marine glue or old paint, so that when tightly in place water cannot possibly get down between flange and planking. Sometimes the flange will have a slight curve to it — just a little bit more than the planking — and when this happens it is all but impossible to get a tight joint. The watertight flange should be on the inside of the planking with a false ring on the outside. This inner flange may be treated as already suggested, but it will not be subjected to the wet and dry changes and will therefore be more apt to remain tight.

After all, having a tight cabin is a relatively simple accomplishment and for the amount of trouble involved it is more than worth while. Don't wait until it rains again before you go after those leaks, but start in while the weather is good and make a complete job of it.



The Beautiful

ROBINSON SEAGULL

NOW DISPLAYED AT

A. C. F. Salons

THESE fleet, graceful runabouts will hereafter be displayed beside their sleek sisters, A.C.F. Cruisers, at the A.C.F. showrooms in New York, Detroit and San Francisco.

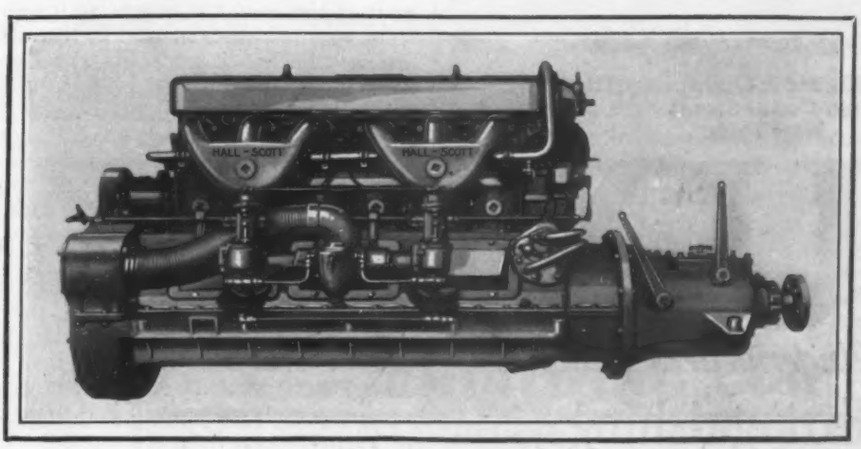
The Seagull is 38-feet 6-inches overall and ranks with the world's finest, in speed and in simplicity of control. It may be had in either of two arrangements—for commuting or for over-night sojourns.

Driven by the ever-popular Hall-Scott 200 H.P. Marine Engine, the Seagull easily negotiates 32-35 miles per hour, smoothly and unfailingly . . . for uninterrupted performance is an outstanding characteristic of every Hall-Scott.

Complete details will be mailed if you will address the A. C. F. Salon, 217 West 57th Street, New York; A. C. F. Salon, 500 East Jefferson Avenue, Detroit; or S. C. Kyle, 427 Rialto Building, San Francisco.

POWERED BY

HALL-SCOTT



STANDARD EQUIPMENT
on the New Banfield "32"

52 Lux Systems were installed this year on Banfield Sea Skiffs. Next year Lux will be a standard item of equipment on every Banfield "32".

More and more, yacht builders and yacht owners are turning to the Lux System as the best factor of safety that can be added to a boat. Not because it's advertised, but because it has saved lives and boats in time of fire.

On yachts and motor boats, in the Navy and in the Coast Guard, it has extinguished over 100 fires without a failure. On all kinds of fires — in the bilges, around the engine, when the decks were blown away — Lux has proved itself effective every time.

All the larger boat yards are dealers

Walter Kidde & Company, Inc.
140 Cedar Street
New York

LUX
The Only Underwriters' Labeled
Yacht Fire Extinguishing System

Indian Harbor and Pilgrim Yacht Club Crews Win Women's Championships

(*Continued from page 68*)

Pleon's lee. In the last leg of the final race, a beat to windward, Miss Hunnewell overstood, while Miss Atkins hit the line on the nose and won by 50 seconds.

It is interesting to note that several days before a number of the women and girls sailed in the third Mixed Doubles Championship at Nahant which Raymond Hunt and Brenda Tweed captured, thereby gaining permanent possession of the handsome King Cup for the Duxbury Yacht Club.

The following is the makeup of the crews in the two championships:

WOMEN'S CHAMPIONSHIP

Indian Harbor Y. C. — Lorna Whittelsey, Edith and Helen Wills.
Cohasset Y. C. (B crew) — Adelaide Brown, Mary Vance, Barbara Fitch.
Corinthian Y. C. — Mrs. Charles A. Welch. Dorothy Jealous, Elizabeth Hovey.
Beverly Y. C. — Eleanor Hoyt, Mary J. Bigelow, Katherine Watson.
Cohasset Y. C. (A crew) — Ruth Sears, Esther Sears, Helen Swain.
Pleon Y. C. — K. Frances Pitcher, Martha Houser, Isabelle Porter.
Scituate Y. C. — Peggy Read, Caroline Read, Jean Read.
Duxbury Y. C. — Helen Hunt, Francis Cook, Mary Sabine.
Nahant D. C. — Susan Hammond, Mrs. David Sigourney, Mrs. Kenneth Billings.
Manchester Y. C. — Mrs. H. P. McKean, Mrs. F. L. Burnett, Mary Loring.
Quissett Y. C. — Pauline Forbes, Agnes Warbasse, Catherine Hughes.

GIRLS' CHAMPIONSHIP

Cohasset Y. C. (C crew) — Frances McElwain, Mary McElwain, Marjorie Miller.
Pleon Y. C. — Caroline Hunnewell, Priscilla Simonds, Katherine Bowden.
Duxbury Y. C. — Ann Peterson, Ruth Coffin, Barabara Glidden.
Cohasset Y. C. (B crew) — Frances Williams, Peggy Little, Fanny Homans.
Hingham Y. C. — Ernestine Hills, Virgina Dyer, Elizabeth Boggs.
Pilgrim Y. C. — Mary Atkins, Mary and Elizabeth Loder.
Cohasset Y. C. (A crew) — Jane Bancroft, Helen Homans, Louise MacMillan.

WILLIAM U. SWAN.

The Bang Choon

(*Continued from page 58*)

big sheer they are dry and take the beach easily while their long lines eliminate much of the labor of rowing.

The spars and sails, the latter of cheap canvas tanned with cutch, are of such length and size as to stow away easily. The rudder is used only when under sail.

To stiffen the boat when on a passage under sail a line is attached to the mainmast half way up, and one or more of the crew hanging on to it swing out to windward, forming most efficient and lively ballast. The short oars are used for beach work, but the Teochews, when rowing against an adverse wind bring into play an extra pair of long oars aft, the rowers standing to their work and facing forward. When the boats are high and dry between tides, the net is stowed inboard and covered with a portable roof of matting, or Kajangs, as dotted in on the plan. The seams of hull planking are caulked with palm fiber, stopped with Chunam (lime mixed with oil) and the hull coated with tar.

While the sketches and lines were being taken off by the writer the excitement amongst the Hylam Kongsi was immense and the jokes and laughter were cause for marvel. When told that their boat would appear in an American paper and be criticized by thousands, their pleasure knew no bounds and I had to promise Ah Peng a copy of YACHTING for himself.

BUILT BY CONSOLIDATED FOR WILLIAM RYLE

Length 55 feet
Beam 11 feet
Speed 25 miles

The Commuter

Opens up a new and pleasurable mode of modern transportation for the busy executive

THERE'S a sleek, well-groomed air of a thoroughbred to this new craft, designed and built by Consolidated—an air of distinction and quality that appeals instantly to every true sportsman. Back of its easy grace and its trim rakish lines, is rugged, business-like power, the ability to flash away—to get there quickly and back, while staunchness and seaworthiness are apparent in every line.

Invariably a man is as proud of his Consolidated craft as he is of his home. For in its performance, year in and year out, in its appearance and its luxurious and perfect appointments—on deck and below—he knows that beyond question his is as perfect as a boat can be.

Consolidated will be glad to discuss boats with you. Help you to determine what type of a craft will suit you best, and aid you with suggestions, plans and sketches for the craft you have in mind.

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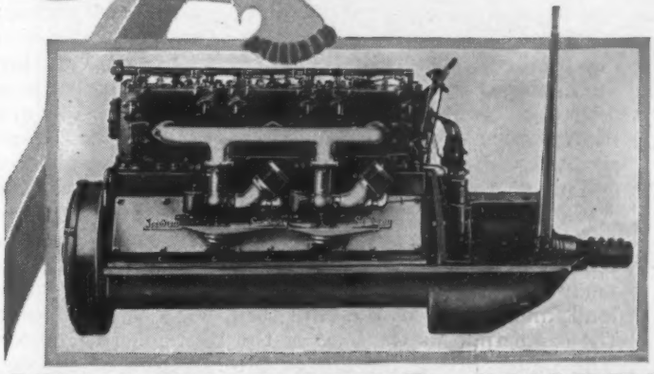
SPEEDWAY
Model M P
170 H.P.



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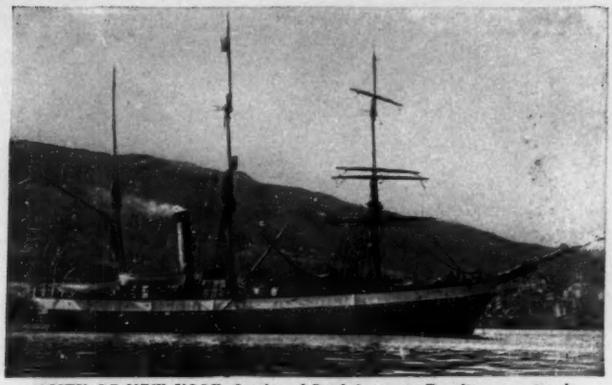


CITY OF NEW YORK, flagship of Byrd Antarctic Expedition, equipped with 5-K. W. Kohler Electric Plant

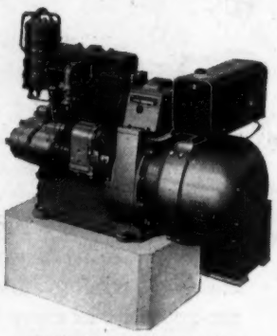
2 have shipped as passengers

but 3 must work their way

FIVE Kohler Electric Plants are Pole-ward bound with Commander Byrd. Two 2-K.W.'s are snugly crated: their day will come when they are sledded over the Antarctic ice to the base camp—to light living quarters, machine shop, and store house, and power the radio sets that will maintain communication with the eagerly waiting world.

The other three plants are working their way, now. A 5-K.W. unit on the flagship City of New York and two 2-K.W. plants on the supply ship Chelsea have been given the important job of furnishing auxiliary light and power, supplementing the ships' generators.

Be sure that the engineering experts of the Byrd Expedition picked these plants with only one thought in mind—to make no mistake; to get the best, regardless. They had the success of thousands of Kohler Electric Plants to guide them—the proof of rugged dependability that has made these trusty machines the choice of seafaring men in every branch of marine service.



Kohler Marine Electric Plant
Model DP—1½ K.W.—110 Volt D.C.
Other models: 800 watts; 2, 5, 10 K.W.

Find out about the Kohler model that meets *your* exacting requirements. The coupon below will bring full information and convincing evidence.

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KOHLER OF KOHLER
Electric Plants
Automatic—110 Volt D. C.—No Storage Batteries

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Kohler Co., Kohler, Wis., U. S. A.
Gentlemen: Please send me the Kohler Electric Plant booklet.

Name..... *Street*.....

City..... *Use in which interested*.....

Fan Kwai, the Automatic Boat

(*Continued from page 54*)

r.p.m. the three propellers would revolve at 100 r.p.m. When this engine turned up to maximum speed, say 1,500 r.p.m. — with all three propellers consequently at 250 r.p.m. — one of the wing engines would automatically start and its engine revolutions would be added to those of the first engine. With the second engine at 700 r.p.m. the aggregate engine revolutions, for example, would be 2,100 and the propellers would therefore turn at 350 r.p.m. When both these engines turned at their maximum, the third engine would start and its revolutions added to those of the other two. The arrangement would have given maximum efficiency of operation and would have provided a well graduated range of speed.

Colonel Rogers vetoed the proposal because it involved the discomfort of noise and vibration attendant upon engine operation at full power. He preferred a system permitting all three engines to be operated under reduced load whenever the boat is running at reduced speed. A fixed speed reduction of 2:1 has therefore been adopted between the generator and the motor of each unit, thus giving each propeller half the speed of its engine, and the three units operate independently of each other.

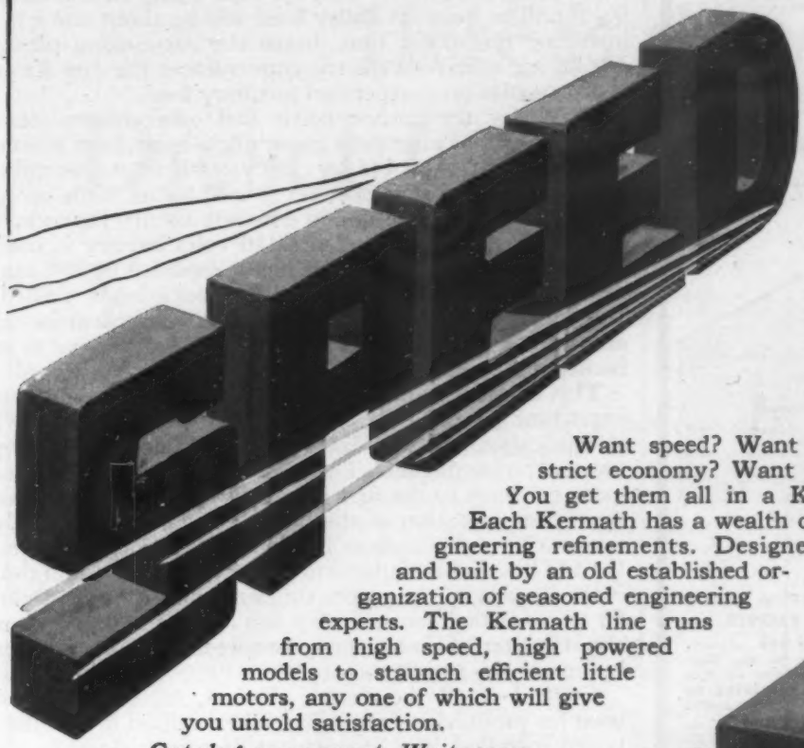
Why this machinery does not need to be tended by an engineer is explained by the use of standard gasoline engines for driving the generators. Self-starters permit the engines to be started by the usual push buttons on the instrument board. Dual ignition is fitted, and with the primers, magnetic starting switches, voltmeters and tachometers the engine instrument board is similar to that of an ordinary gasoline-engined yacht.

Control levers for the combination power and propelling units are provided (1) at the pilot stand on the main deck and, additionally, (2) in the small cockpit forward as well as (3) on the navigating bridge. The three stations are interlocked to prevent the use of more than one set of controls at any time, selector buttons being fitted at each station to free the controls there and lock the two other sets. Each electric unit has its own control lever with five points forward, five points astern, and a neutral position. At the pilot stand on the bridge, protected by a glass wind-dodger which incorporates a clear-view screen with a rain wiper, the wheel and electric propulsion controls alone are fitted. Engine starters, instruments, etc., are not duplicated there, nor in the small cockpit forward.

Forward of the engines is the smallest gyro stabilizer yet installed in a boat. It has to suppress a very quick roll, the natural rolling period of the *Fan Kwai* being something like 3½ seconds. When tried out, it accomplished its duty extremely well, holding the boat within two degrees of roll under conditions that caused a free rolling of 20 degrees. With this apparatus the owner secures a steadiness of motion that without the stabilizer could have been obtained only in a very much larger boat.

Steering, of course, is electric. There are three semi-balanced rudders, one in each propeller line, and all three are operated by the one electric-hydraulic steering gear, controlled either at the main pilot stand on the bridge, or in the forward cockpit. Hand steering is fitted as a stand-by. At each pilot stand a rudder-angle indicator is fitted.

Though there are about 60 electric motors in the *Fan Kwai* the peak of the auxiliary load will never be very considerable, because most of the motors are of fractional horsepower and serve momentary conveniences. The anchor hoist load cannot coincide with the steering engine load, and neither of these, in turn, will ever come on at the same time as the load of the boat hoisting motors. The motor lifting the hinged after section of the deck shade is only ¼ h.p.; the bilge pump takes a maximum of ¼ h.p., and the pressure pump of the fresh water supply is rate ⅙ dh.p. At rare intervals these might simultane-



Want speed? Want power? Want strict economy? Want endurance? You get them all in a Kermath. Each Kermath has a wealth of engineering refinements. Designed and built by an old established organization of seasoned engineering experts. The Kermath line runs from high speed, high powered models to staunch efficient little motors, any one of which will give you untold satisfaction.

Catalog on request. Write now.

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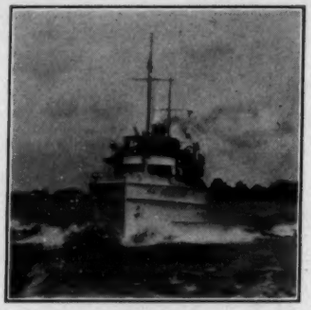

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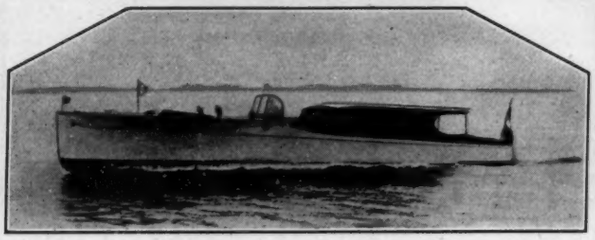

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60-ft..... 33,500
73-ft..... 50,000
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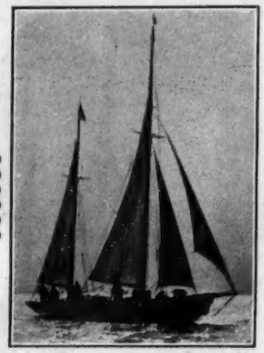

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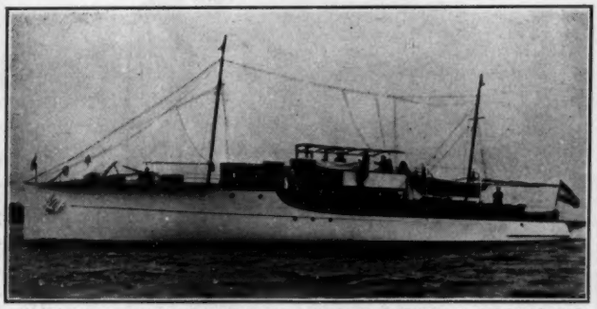

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Twenty years of actual personal experience in building, designing, and installing Diesel motors in the U. S. A. and Europe, enable us to give you the best available advice on DIESEL PROPULSION

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DUTCH BUILT CRAFT

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ously be added to the load, but it would be only by deliberate choice. The motors that open or close the glass screens use collectively only 3/8 h.p., being individually 1/32 h.p. The heaviest galley load will be about one h.p., including the motor that drives the gas-making plant. For all her numerous electric conveniences the *Fan Kwai* thus presents no exaggerated auxiliary load.

Power for the anchor hoists and other intermittent services, such as after deck hoist, piano hoist, boat hoists, etc., is taken from a 1½ kw. 110 volts Kohler automatic generating set. The Kohler set is used for all loads up to its capacity when its running does not disturb the owner, but when quiet is desired the 110 volts battery is used instead. This battery, which has a capacity of 150 ampere-hours, can take care of all ordinary loads aboard. It is charged either by one of the main generators or, alternatively, by a shore connection when the boat is at its home station.

This consideration of the peak of the auxiliary load is important because it emphasizes that the owner's electrification of all the labor details has not created any unusual power demand. The whole plan exhibits a balance quite contrary to the first impression generally conveyed by the enumeration of the boat's special features. Only one auxiliary function is beyond the capacity of either the 1½ kw. Kohler automatic set or the battery, and that is the starting of the gyro stabilizer, which requires about 70 amp., though considerably less current is taken when the stabilizer has been run up to speed. This load is taken by one of the main generators.

Control of all the electric devices, other than those used for propulsion or steering, is centralized in a switchboard installed in a convenient location, close to the main pilot stand and to the galley companionway.

Only the mooring line guns remain to be worked out thoroughly. They have given good promise in preliminary tests, and further trials will be made as opportunity affords during the season. All the other devices are operating well, many of them having been in service during the last winter, when the owner screened in the after part of the deck, moored the boat alongside a float at his shooting preserve near Southampton, L. I., had a steam line carried aboard from the shore and used her as a luncheon adjunct. The main power units and boat handling rigs were installed in the spring, and the boat has been in constant use this season. Everything has functioned so well that only one or two refinements have to be made. In fact, it looks as if the day when it is possible to have a crewless, automatic boat is at last at hand, due largely to the initiative of Colonel Rogers and to those who have so ably worked out the devices for the *Fan Kwai* which have been described here.

The Cruise of the Bimesa

(*Continued from page 57*)

rig. In spite of their looks, however, they certainly are able and dry."

From the entrance to Gaspe Bay to the town itself there is a stretch of 15 miles. We made this, still under foresail, in just two hours. At a little after four we dropped anchor in front of Gaspe. A shore party arranged to have the battery and generator looked after, and also saw a St. Lawrence pilot, Captain Roberts, who agreed to take us to Quebec. We were in a splendid harbor protected on all sides by relatively high mountains, but during supper it blew so hard that even in this shelter we dragged anchor half way across the harbor. We let go both anchors the second time with a thankful prayer that we were not outside.

The next day, August 24th, it was still blowing too hard to put out, so we amused ourselves by watching a "one

Here is the *New* Diesel Cruiser Squadron

YOU'VE been hearing a lot about Diesel powered craft of late—of their dependability—lack of fire hazard. You've heard that a Diesel boat has three times the cruising radius of gasoline. But, perhaps like many another man, you thought only of Diesel-equipped boats as existing in the larger-size yacht class.

At any rate, this advertisement will be of news interest to you—for it is the announcement of the new Humphreys Diesel Cruiser Squadron, now ready for your inspection. Which means that today the dependable, safe, economical features of Diesel power are made available to yachtsmen in the popular, smaller-sized craft.

Three Popular Sizes

The 66—Commander The 55—Navigator
The 43—Explorer

Before the Frederic P. Humphreys Company, Inc. engaged in the building of small Diesel Cruisers, it undertook the most rigorous series of tests possible—both here and abroad, and only then entered into actual construction. Test boats have been in commission for a year. Comparisons made over this extended period satisfied officials of this Company that Diesel represented great superiority in the matters of economy, reliability and safety.

Therefore, the new 1929 Humphreys Cruiser Squadron is Diesel-powered.

Custom Quality

Although designed in the three sizes, you may rest assured that Humphreys boats are not "stock cruisers." They embrace the refinements and individual interior and equipment of the owner's taste. They are designed and built by men who have produced fine Diesel Cruisers of sizes ranging from 37 to 136 feet for many well-known yachtsmen. The hull construction and interior joiner work are distinctly superior. Strength and sea-worthiness are insisted upon, so that Humphreys Cruisers will give long, satisfying service.

A beautiful, comprehensive catalog is now ready, detailing the facts on the 1929 Humphreys Diesel Cruiser Squadron. Send the coupon for your copy.

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347 Madison Avenue · New York City

Send for the 1929 Catalog

The 66 Discoverer and Commander

Accommodates five to seven plus Captain and 2 hands. Large bridge deck; sheltered after deck. Roomy saloon. Cruising radius 1800 miles; speed 13-14 miles. Twin Standard Diesel engines—40 to 60 h. p. Personally selected furnishings.

The 55 Navigator

Cruising radius 1500 miles—speed 12 to 13 miles. Accommodations for four plus 2 crew. Large sheltered raised deck, sheltered cockpit. Complete equipment. Personal choice of fittings. Standard Diesel engine—4 cylinder

The 43 Explorer

In three arrangements—for paid hand or without hand or with 2 crew for day service. Ample accommodations; wide saloon. Cruising radius 1,000 miles; speed 11 to 12 miles. 4 cylinder Diesel engine. Personal selection of decorations.

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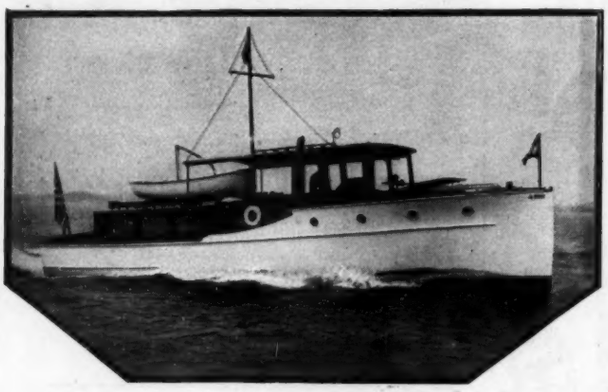
A New Kind of Thrill
for a Thrill Wise World

NEWPORT?

ANNOUNCEMENT of this New Stock SPEED CRUISER DELUXE, moderately priced, by Staples, Johnson & Co. will be made in the next issue of this publication. We honestly believe that no other craft even approaching it in Style, Beauty of Appearance, Speed, Performance or Value has yet been produced.

This marvelous new model has been christened the NEWPORT, a craft that will make you tingle with enthusiasm. Literature ready December 1st. It will be on exhibition at The Show in January.



Pictured above is our Stock 40.
1929 Literature now ready.

"It Costs Less to Build
Good Boats in Maine"

STAPLES, JOHNSON & CO.

BIDDEFORD, MAINE

lung mechanic," as the Captain termed him, make an attempt to fix the generator. He said that the armature was probably wound the reverse of our former one, and as a result it would register a discharge when it was really charging. By reversing the wires to the armature he made it register a charge, and, our joy overcoming our skepticism, we thought that once more we could hit for Quebec.

Running out of Gaspe the next morning we had a fair W.N.W. breeze. After we rounded the cape at the entrance of the bay, however, our course lay approximately W.N.W. We did not want to use our power unnecessarily, so until 4:30 that afternoon we beat to windward into a strong tide and a choppy head sea. About noon the sea became pretty bad and here we first christened the *Bimesa* with green water over the bow.

That day we ran into several rain squalls and, although the barometer was rising slowly, the weather looked decidedly unsettled. By 4:30 in the afternoon we had done barely 22 miles, having been under way 7½ hours, so we decided to put into Fox River (Rivière Reynard).

We had no sooner docked on the inside of a long breakwater than 50 or more rainbow-hued fishing boats came over to buy "du contreband" or "wheeskey." The people had been expecting a rum smuggler for some weeks and when we put in they all mistook the battered *Bimesa* for the carrier of fire water. They would not go away for some hours, thinking that our drums for extra gasoline might hold the cherished liquor.

We awoke the next morning to find a stiff west wind heading us off again. It showed signs of quieting down, however, and we put off at 6:30 P.M. with a favoring offshore breeze, which as usual, shifted dead ahead within half an hour. We turned on the power with the rapidly failing battery and were forced to use it until midnight, when a W.S.W. breeze sprang up to help us along. But of course this could not last and we again used our motor about 3:30 A.M. with a battery too far gone to turn over the starter.

At 6:30 A.M. the long-awaited event occurred. The motor died. From this time until late in the afternoon we beat against a very light breeze and a much stronger tidal current, making barely 12 miles. Finally we were able to creep into Mont St. Louis, where we procured 15 dry cells, and put out with a rejuvenated motor at 6:30 that night.

With a favoring W.S.W. breeze we set all sail and tried to make up for lost time. We averaged a little better than 5 knots during the night and, with Cape Chat abeam at 7:15 in the morning, we changed our course to N.W. by N. for Diamond Point on the north shore of the Gulf of St. Lawrence. We planned to follow this shore for some distance, cutting south again at the Saguenay River, but the condition of our dry cells made it necessary that we run as quickly as possible for Rimouski.

Accordingly, our course was set to the south shore again and we picked up Barnaby Island, outside of Rimouski, at midnight. We searched in vain for the harbor range lights, and, unable to locate them, finally decided to lie at anchor outside until daylight. The rest of the night passed uneventfully and dawn found us lying safely at the government wharf in the harbor. Here we filled up with fuel, water and supplies, to say nothing of a cargo of dry cells, and managed to get under way again by noon with Quebec as our next port of call.

We passed the Saguenay River in the afternoon and could now consider ourselves in the St. Lawrence River proper, subject to all its tides and currents. I mention these latter because in many places the tidal flow, both ebb and flood, will run as high as 7½ to 8 knots an hour.

About 6:30 P.M. a wind came in dead astern and soon increased to such proportions that we soon dropped our mainsail and turned off the power. From this time until midnight, when the tide turned against us, we were averaging pretty close to ten knots, a four-mile-an-hour

If You are Thinking of a "SIX" at Any Price

—you will want to consider the remarkable New Gray "8." It is very compact—less than 60" in length over all. Only 20" high above center of shaft. Develops 117 H.P. Weighs only 880 lbs. and is priced at only $1100.

Any boat equipped with this New "Eight" will be a better boat—a more modern boat—a more satisfactory boat, and of course, will have a value far in excess of the slightly higher cost of this finer power.

GRAY "8"

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NEW YORK, N. Y., Bowler, Holmes & Hecker, 259 Greenwich St.
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SAN FRANCISCO., CALIF., The Thomson Machine Co., 235 First St.
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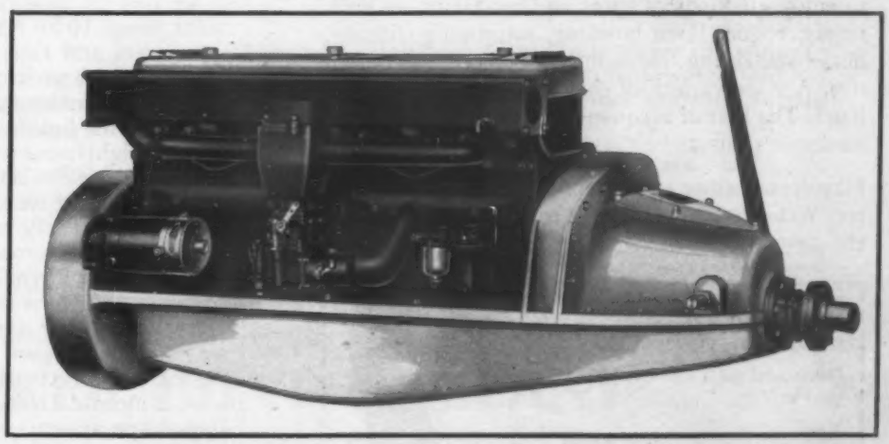
TORONTO, ONTARIO, CANADA, Gray Marine Motor Co. of Canada, Ltd.
WILMINGTON, CALIF., The Wilmington Boat Works.

"For Speed that Meets the Need Today"

—Develops more than 115 H. P.
—Under 60 inches in length.
—Only 20 inches high above center of shaft.
—Has counter-balanced 5 bearing crankshaft, 2⅝" in diameter.
—Has a bore of 3⅜" and a stroke of 4½", giving 322 cu. in. displacement.



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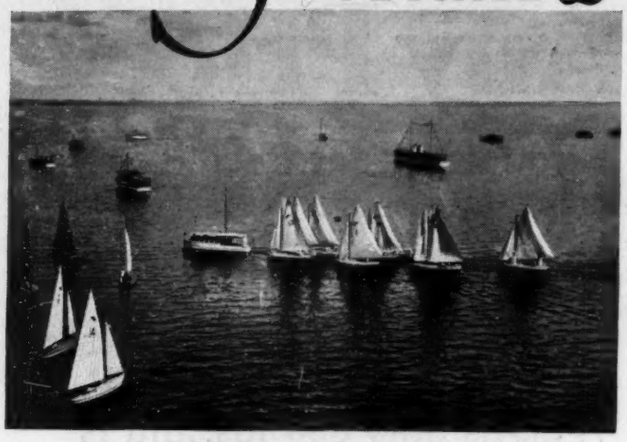

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flood helping us along. At 1 A.M., however, we pulled into the lee of Brandypot Island to await another flood tide. We were close to the *Traverse*, and there was no purpose in bucking a 7½-knot current, especially since the wind had kicked up a chop against it.

Bit by bit we crept up the first leg of our journey, and seemed to be making fair progress until we reached the west point of Orleans Island where we came to a standstill. For half an hour we just held our own against a tremendous flood of water. Quebec was in sight with the Chateau Frontenac silhouetted against the sky, and yet we could not approach closer. Finally, however, it seemed we were able to coax a little more power out of the engine, and, foot by foot, we edged nearer the tidal basin. After what seemed an eternity we docked at the Quebec Yacht Club at 5 P.M.

Lying at Quebec all the next day, we were able to secure a competent electrician to repair our generator. After a thorough testing he discovered that a lumpy winding of the armature had resulted in several fields of the commutator being short-circuited.

We ran out of the basin in Quebec about 4 o'clock, the afternoon of the first, with practically a gale of wind blowing dead astern. Under foresail and power we were able to stem a half hour of ebb tide and were soon making good speed on the flood. Running until 10:30 that night, when the tide turned against us, we covered a reasonable distance and came to anchor just outside the channel in a bend of the river. Our soundings gave us plenty of water, but imagine our surprise at dawn to discover a mass of jagged rocks not 20 feet to starboard.

The morning of the 4th we crept into Montreal as we had crept into Quebec, barely making a foot against the current. Our going from here on was necessarily slow. Alternating locks and current became irritating, making this the only unenjoyable part of the cruise. The night of September 5th we lay at Cornwall, just inside the first lock, and the next morning set out for our first port on the Great Lakes, Cape Vincent.

Leaving Cape Vincent the next morning we set our course S.W.½W. for East Charity gas buoy. Picking this up just before noon we changed our course for Main Duck Island. The weather was practically calm and we were using power only, but since the barometer had been slowly dropping we expected a breeze by nightfall. About 9 P.M. our usual following wind sprang up, increasing in velocity until we could carry only our foresail running before it. Quite a sea was rolling on our stern by dawn, and the Captain was more than surprised that such could occur on the lakes.

We made Port Dalhousie at 8 A.M. and spent all day and part of the night running some 22 locks of the Welland Canal. There was a great deal of traffic going through, and so we tied up to some convenient piles at one side of the canal about 10:30 P.M.

Supplies and fuel were put aboard at Port Colburne next day, and we left for Put-in-Bay at 2 P.M., expecting to pick up Southeast Shoals Lightship the next morning. At 10 A.M. a lighthouse was just visible in the fog, but since no lighthouse was apparent on our charts, there was some doubt as to our position. Our chart, however, was dated 1924 and we concluded, therefore, that this lighthouse had recently replaced the lightship, an assumption verified when we rowed over to consult the keeper.

The cruiser *Priscilla* acted as a guard of honor as the battered and worn *Bimesa* came to anchor in Put-in-Bay.

At Put-in-Bay our cruise was ostensibly finished, but we still had to reach Toledo. This part of the voyage was passed with everyone making frantic attempts to clean up after a month aboard ship and give the good little craft a ship-shape appearance. With some degree of excitement we came up the channel from the harbor light. Of course there was a thrill to "getting home," especially as over 50

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AGAIN for 1929 Hackercraft will set new and higher standards of excellence in runabout design and construction, supplemented by surpassing beauty of line and finish. The creative art of John L. Hacker, internationally accepted as the world's foremost designer of fast pleasure boats, has attained new heights, and only in Hackercraft is available such blending of beauty in contour and efficiency in running lines.

Accurate woodworking machinery and the latest factory equipment open up the fullest possibilities for economical production. There are, however, time established standards of hand craftsmanship zealously retained in the Hacker shop practice because they can not be dispensed with except at a sacrifice of lasting qualities and staunchness. Scrupulous care in the selection of materials is held equally important with inspired design and meticulous workmanship.

While it is only natural that Hacker prices must be slightly higher than those of competing boats, the almost negligible difference in price is more than compensated for in greater intrinsic value. A production program that warrants every practical manufacturing economy insures honest value giving.

1929 production is already under way on three standardized runabout classes, a 24, 26, and 29 foot in both open and Sedan types. A fine product has been made even better through the addition of ten outstanding refinements and improvements.

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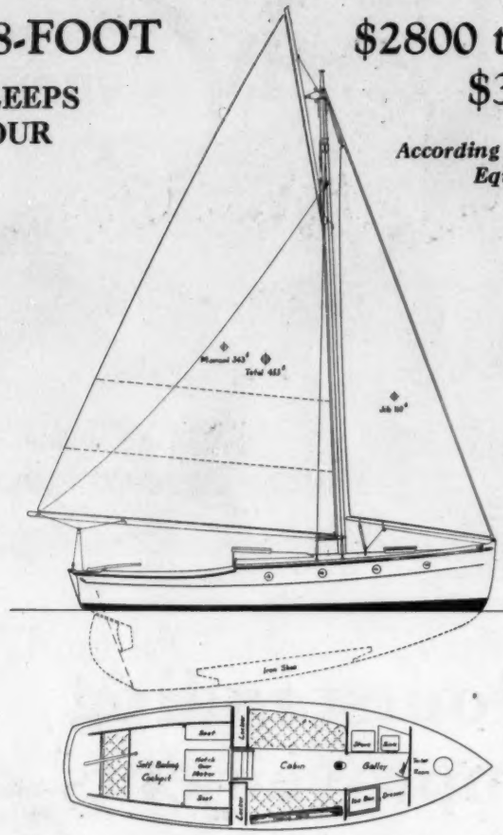

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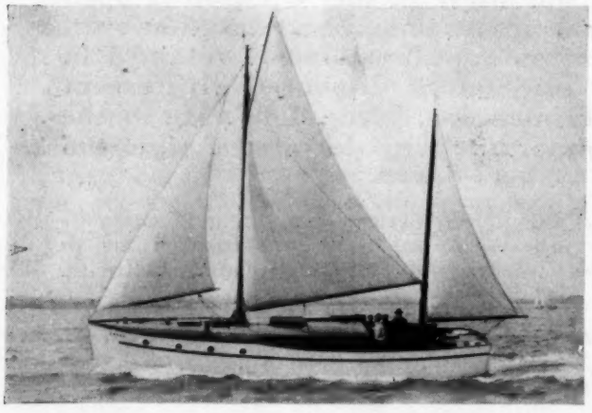

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craft had turned out to do us honor, and incidentally "see what she looked like under sail," but there was also a pang of sorrow that our cruise was over. We had lived over five weeks aboard the sturdy *Bimesa;* we had loved her and hated her; cursed her and babied her, and her little cabin seemed too much like home to leave without regret. Yet we consoled ourselves somewhat by the thought that perhaps the next year we would cruise back to the ocean again, with the current this time.

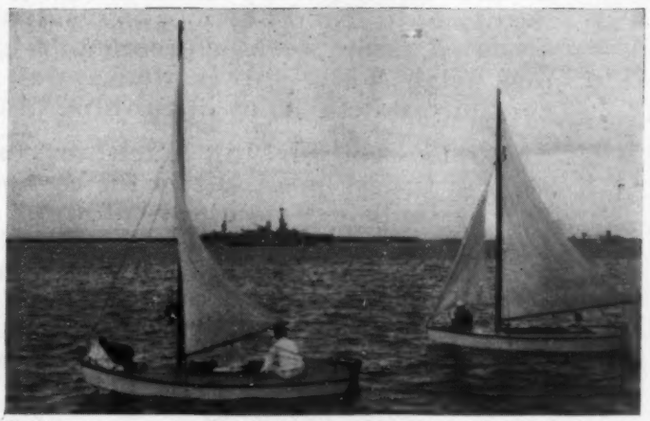
Close-up of the *Spartan* model 15-footer.

Spartan—A Realization of a design for Sportsmen of Limited Means

(*Continued from page 64*)

tions of their designer as regards facility of construction, low cost, stiffness and sailing qualities. No ballast is carried except the live ballast of the crew, which varies from one to three men in accordance with the strength of the wind, and there have been few capsizings not due to lubberly handling. As a matter of fact, the boats telegraph plainly to the skipper when a dangerous degree of heel is attained, and none but a tyro can disregard such plain warning.

The boats react wonderfully to tricks of the racing game in preparation for sailing, including adjustment of rake of mast for wind to be encountered, flatness or full-



Talking it over after the finish of a race, with a battleship in the background.

ness of the sails, and condition of the bottom. In sailing they react equally well to the proper distribution of the live weight, to the trim of the sails and to the amount of centerboard carried. The winds in this bay are so tricky, with ever-changing areas of soft spots and with areas of fish-tailing directions, that the proper strategy is never the same, and a skipper must study each race in turn and must frequently entirely change his tactics in the middle of a race.

The personnel of the Naval Station has much to be thankful for in the presentation of a design within their limited means and one which can be so successfully sailed in competition on this bay.

Three National Triumphs!

AT Wilmington, a clean sweep of every event in which Quads were eligible! 1st in the Grand Free-For-All (Frey 36.7 m. p. h.) . . . and 2nd . . . 3rd . . . 4th . . . 5th! 1st . . . 2nd . . . 3rd . . . 4th in Class D Free-For-All — 1st and 2nd in Amateur Class D — Harrington setting new records of 37.02 in both races! *Winning motors torn down and officially declared stock!*

. . . and in the Danville Regatta Quads registered one victory after another, culminating in a new *official* competition record of 37.3 m. p. h., made by Higgins.

. . . and in the Mid-West Championship Regatta at Peoria Quads again swept the field—winning the 5-mile Free-For-All — the 25-mile Free-For-All — with Eldon Travis setting a new time-trial record of 41.748 m. p. h. — *the oft-predicted 40 mile outboard speed for the first time reached—passed—shattered.*

The outboard world now knows the plain truth . . . . that only a Hi-Speed Quad, expertly driven on a fast boat, can successfully compete with a Hi-Speed Quad, expertly driven on a fast boat.

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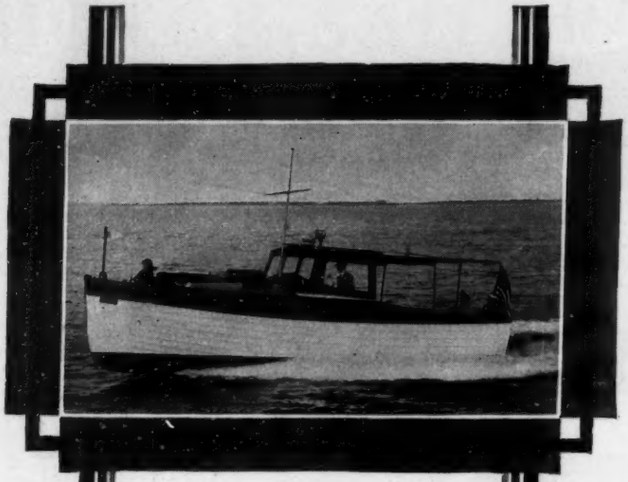
Hi-Speed Quad



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BANFIELD
"32"

YACHTSMEN who through their own yachting experience can appraise boat value and performance correctly are unanimous in saying that no other standardized boat surpasses the Banfield in value or sea ability.

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LARGEST BUILDERS OF SEA SKIFFS IN THE WORLD

Deep Water Sailing

(*Continued from page 63*)

gradually to become a purer and darker blue. But on the north side the change was most striking. For some hours before we reached the edge we noticed here and there patches of water which was of a dull brownish-green color, in very marked contrast to the surrounding splendid blue. Unfortunately, we did not think of taking the temperature in one of these patches. It did not occur to us that they were anything but a discoloration due to something floating in the water. But when we came to the edge and got a series of low temperature readings, we found that we had lost the blue water altogether. The brown patches must have been at a stage where the warm water was spread in a very thin layer over the cold which broke through to the surface here and there. The climate changed no less quickly than the water, and the fresh cool air was a real joy to us after weeks of damp heat.

The day before we made our landfall had been ideal for taking sights, and Warneford had fixed the ship absolutely. At 8 next morning he asked me to heave-to for a cast of the lead, saying that we were in 28 fathoms. So we took a cast and the depth was exactly what he said. We sailed on and at 11 A.M. we made our landfall, Montauk Point bearing N.E. by N. distant 10 miles.

It was good to see the land again after 30 days at sea from Palma, and to make an absolutely true landfall after sailing all sorts of courses and drifting in calms and gales. But personally I was no more surprised at the accuracy of it than one is at reaching one's destination in a train. Neither, I believe, was Warneford, who had taken countless observations throughout the whole voyage. He is a born navigator and now, after nearly seven weeks' practice, he was able to rely upon his sextant readings at times when it seemed impossible to find the real horizon at all. I have seen him take good star sights when I could not keep a star in the field of the telescope, or hope to bring it down to the horizon. I feel that I may claim a small share in Warneford's success, because I had taken great pains to see that the ship's wireless receiving gear was really efficient. In this I was helped by a friend who is a great expert on the subject and who designed two receiving sets especially for the voyage. In the early stages I took every opportunity of receiving the time signals, so that by the time when they became distant I knew exactly what to listen for. We carried Lafayette, the big French station, for over 4,000 miles, and picked up the U. S. time signals ten days before we lost France. The set for this long distance work was specially made for wave lengths around about 19,000 metres. I think I may claim that we always knew G.M.T. to within a half second, and this, of course, gave Warneford complete confidence in his calculations. Our chronometer was a small eight-day Waltham and kept the very good sea rate of less than $-\frac{1}{2}$ a second a day. Its harbor rate was always about $-1\frac{1}{2}$ seconds, which emphasizes the value of being able to check the rate by time signals. On a long voyage good receiving gear is one of the most important points in a ship's outfit.

We sailed close in under the Long Island shore and there set our big sails, hoisted a new ensign at the peak, and made the ship as smart as possible for her appearance in American waters.

That night, in Long Island Sound, it fell calm, and we did not reach Larchmont until the following evening. We anchored there about 7 o'clock, and so our long passage ended. Of the greetings and wonderful kindness we received everywhere during our four-weeks' stay in the Sound I can only say that they would have amply rewarded a voyage of double the length, and that our only regret was that beyond the pleasure of receiving many visitors on board, we could make no return for all the hospitality we received.

The new Commodore's Flagship leading the A. C. F. Fleet out of Manhasset Bay, Long Island

A record is logged in the history of cruising

a.C.f. FLEET DAY

One of the A.C.F."41s"

ON September 12, 1928, in Manhasset Bay, Long Island, there was a magnificent assemblage of cruisers in celebration of "A. C. F. Fleet Day".

One by one, some from nearby ports and others from a distance, the graceful craft glided in . . . the tidy A. C. F. Thirty; the staunch Thirtyfive; the sleek Fortyone; the swift Fortyseven; the gallant Fiftyfour; and the stately Sixtyeight.

Never before in the history of cruising has there ever been such a large number of craft *of the same standard make* in one harbor. It speaks volumes for the universal acceptance of A. C. F. as vessels of outstanding design and construction.

It is a rare compliment to the grace, the seaworthiness, and the all-round perfection of A. C. F. Cruisers to have so many prominent figures of the nautical world travel many miles to testify to their high regard.

The American Car and Foundry Company takes this opportunity of expressing its abundant appreciation of the part which these, and other A. C. F. owners in all parts of the country, have played in making A. C. F. Cruisers a thorough success.

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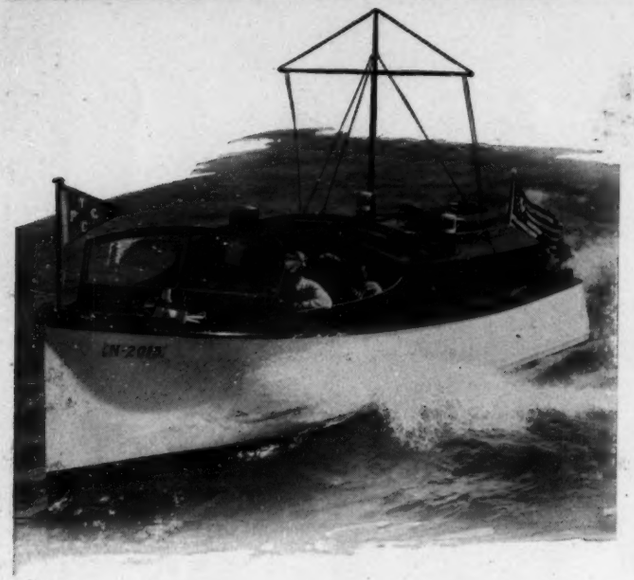
A portion of the fleet at anchor in Manhasset Bay, New York.



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A new era has dawned in the cruiser world! New possibilities of speed — smartness — style — have been revealed! Performance hitherto undreamed has become a living reality — coupled with a new measure of "chic" in interior decorations and appointments. In other words — the new Matthews Speed Cruiser has arrived!

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Successful from the moment of its introduction, the Matthews Speed Cruiser so fully answers the modern demands of style — speed — smartness — that the near future will doubtless witness announcements from every quarter of other boats of its general type. But the Speed Cruiser will remain the outstanding craft that it is today — a boat beyond rivalry — built as only Matthews knows how — appointed in luxurious manner — powered by a Kermath marine engine that delivers 23 to 25 miles per hour under flexible automobile-type control. 32 feet overall — yet incredibly roomy — the result of the most careful and experienced designing — 4 individual Pullman berths — 6′ 2″ headroom in cabin — mahogany dresser and buffet — full-length wardrobe and clothes closet — complete toilet and galley. And ample space for ten in comfort on day cruises. Send for literature on this boat.

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Designers and Builders of Boats of Distinction — Since 1890

The Loss of the Yacht *Rofa*

(*Continued from page 41*)

prevailing winds were with us, so that we knew that we could not get back to New York, about 800 miles west of us. But we also knew that these same forces which prevented our returning would eventually take us to Europe. The distance we had to go was still 2,400 miles. We could go only before the wind. If we had a head wind we planned to take in our sail and use a sea anchor. We still had 50 gallons of gasoline for our 60-horsepower motor which we planned to use when we neared land. Nova Scotia was about 350 miles off, but we were doubtful about making it with our squaresail, and if we missed it the prevailing wind might have taken us to Greenland. Counting the head winds, when we would have to lie to on our sea anchor, and the days when we would not move at all, due to calms, we figured it would take 40 to 50 days to reach Europe. We thought of trying to reach the Azores, but down there we might be still longer, as near the Azores it is calm nearly twenty-five per cent of the time, and we never would have moved at all with our small squaresail.

No one thought of danger, but only of the disappointment of being out of the race. Starting an hour and twenty minutes after the others, we were up with the largest boat in the race, on which we had 57 hours handicap. Until three days before we had not used any light sail.

Until evening we drifted in a flat calm in a broiling sun. We were anticipating 40 days of this, when after dinner we sighted a steamer. Mrs. Roos got the Very pistol. Walter loaded the gun, closed his eyes and, to our amusement, fired straight down into the water. The next shot he aimed at the steamer. We all called, "Higher" to him, so he fired the third straight up. As the steamer was approaching I asked everyone if they wanted to leave *Rofa*. None were anxious to leave. I had been worrying a great deal about the anxiety of our friends ashore if we were long overdue. The ship was the British tanker *Tuscarora*. Captain Harte sent a life boat over to us and then came alongside with his ship. I asked the Captain whether he would tow us to New York, his destination. He replied that he would if we all came on board. I told him we preferred to stay on *Rofa*, but he said he did not want the responsibility of towing *Rofa* with us on board. He thought she would tow as well without us.

After we had decided to take a tow, I was on deck making the line fast while the others were closing all the ports and gathering their clothes. The ship's crew let down a Jacob's ladder while we were holding *Rofa* off to keep her from bumping against the ship. We rolled considerably, due to a heavy swell, which made it difficult to catch the ladder. They threw us some heaving lines with which they hauled up our sea bags. Someone on deck threw Mrs. Roos a heaving line which she made fast round her waist. I was at the bow, making a line from the ship fast, when suddenly the end of the line up on the deck let go and fell in the water. We drifted out about 25 feet. Happening to glance back, I saw the crew on the ship starting to pull on the heaving line which Mrs. Roos had made fast around her waist. It looked as though they were going to pull her off the deck of *Rofa* into the water. Then there would have been danger of her being crushed between the two ships. However, she saw the danger before we did and cast off the line just as the crew on the ship started to pull. As soon as we were alongside the ladder again, she did not have any trouble getting up, although we were rolling so that the stumps of our masts struck the side of the ship. We then made a four-inch steel cable fast by passing it between the deck and bowsprit, around the winch, and then shackling it around the mast.

The *Tuscarora* started towing *Rofa* about 10 o'clock at about 10½ knots. I watched until about 12. During this

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A 38-foot, 30 mile-an-hour, vee-bottom luxury craft. Here is a fast, sleek, active boat that vies with the wind in speed . . . that will take you hundreds of miles in a few hours . . . that is so completely equipped as to compliment your most distinguished guest.

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From Chris-Craft proving grounds comes a sensational, new enclosed Chris-Craft combining all the speed and easy controlability of a runabout with the seaworthiness and luxury of the finest ocean-going yacht. ¶ Lines that are long, low and streamline . . . a spacious, luxuriously appointed cabin . . . eating, sleeping and lounging accommodations for the entire family. ¶ A boat that will move your pleasure horizon back hundreds, yes, thousands of miles! Let us tell you more about this remarkable new boat, the latest addition to the Chris-Craft line of 14 models. A letter will bring you the details promptly.

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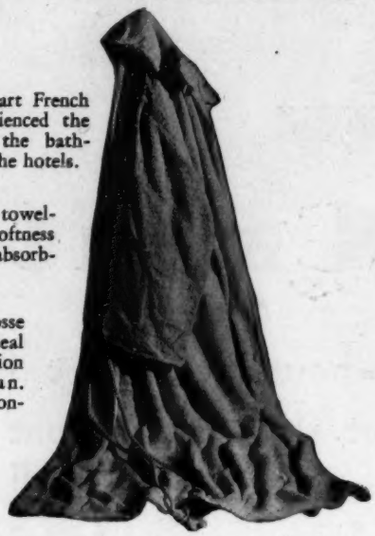

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Generously cut from towelling of exquisite softness and incomparable absorbent qualities.

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time she seemed to tow very steadily. About 2 A.M. our man on watch came to our stateroom and told us the cable was slack. I went aft, and when they hauled in the cable the mast was still shackled to it and looked as though it had been cut off with large shears close to the deck. The cable had been shackled above this point. An enormous strain must have come on the cable. In order for *Rofa* to get away, the bowsprit, windlass and mast had to pull out.

On our second day out on *Rofa* the water had overflowed the wash basin in the forecastle when she pitched. There was no sea cock on the drain to the basin, so to stop the water we forced the rubber stopper in and had to caulk the overflow with cotton. It may have been that these were forced out while the steamer was towing *Rofa* at ten knots, and when she filled up, the strain in towing became too great. However, we do not know this, and she may still be afloat.

Captain Harte and the officers were very kind, gave us their own staterooms and made us as comfortable as possible. In the morning I said to Mrs. Roos that it was too bad we had lost *Rofa* and all our things aboard, especially the chronometers and sextants. Thereupon she told me to look in one of our sea bags, and there I found the ship's clock, barometer, two chronometers, sextant, and other valuables amounting to over one thousand dollars. While I was on deck coming alongside the *Tuscarora* she had been busy below with a screw driver taking these instruments off the bulkhead. Considering the short time, she must have worked fast.

Our crew proved to be very willing and good-natured. I appreciated the fact that they all assured me — in spite of the unfortunate ending of our trip — that they are eager to make another race with me. I hope that I shall be able to take them soon.

Rofa was not insured, and I am glad to say that, except for personal effects, only Mrs. Roos and I sustained any loss.

Bermudians Win Team Match with Interclub Sailors on Long Island Sound

(*Continued from page 38*)

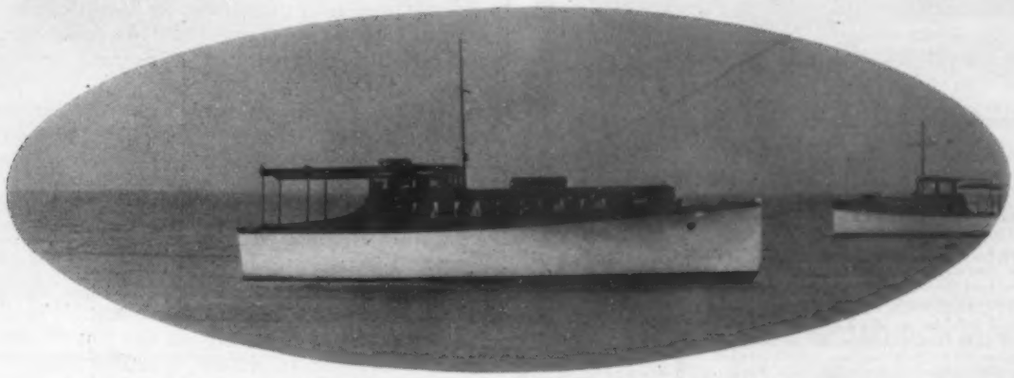
Bandit, heading about for the middle of the line, hauled on the wind to keep from going over. *Blue Streak*, catching a hard puff, came down on her weather quarter and completely blanketed her. *Bandit* stood up straight, *Blue Streak* laid over, and *Bandit's* port spreader popped right through *Blue Streak's* mainsail. The latter, traveling fast, ripped her sail from luff to leach, and, carrying away *Bandit's* port upper shroud, swung the latter's spreader forward like a bowsprit. Seeing the jam which the two American craft were in, Eldon Trimingham, the Bermuda team captain, promptly luffed *Atlantis* into the wind and hailed the committee, asking for a restart after the disabled boats had made repairs. The other three Bermudian boats followed suit, but the committee hailed back to proceed, which the Bermudians reluctantly did. In the scramble *Wee Betty* had gotten a clear lead, and when the jam was cleared up, and the boats on their way, the order was: *Wee Betty*, *Sea Witch*, *Starling*, *Flirt*, *Aileen*, *Atlantis*.

Blue Streak bent on a spare mainsail procured from her power tender, and was determined to finish, although facing disqualification. *Bandit* luffed along for nearly ten minutes making repairs to her shroud, and finally took up a hopeless stern chase.

Down the wind with spinnakers the order was little changed, except that the fleet *Atlantis* moved up from sixth to third position. The wind hauled far enough on the last leg to make it a close fetch. *Aileen*, by a splendid bit of sailing, drove off to leeward of the fleet, right through the lee of *Starling*, *Atlantis* and *Sea Witch*, and then

A CUMMINS ENGINE

Drives her 12 m.p.h. at less than 1 cent a mile



HUMPHREYS FISHING CRUISER
37′ x 10′ 6″ x 2′ 6″

From the small Humphreys cruiser to the *Saturnia*, Diesel engines are winning their way as the power of the hour. Steam and gasoline are giving way to this safer and more economical engine.

The Cummins engine has been simplified to a degree beyond that of a gasoline engine.

The Cummins engine is not a scale model of the *Saturnia* engines but is light in weight, fully enclosed, oil proof, odorless and is more simple to operate and adjust than a gasoline engine.

The engine can be started from the bridge by means of its electric starter and is entirely controlled by one lever.

What may be expected in a small cruiser can be gathered from the performance of the *Marlin*, shown above, equipped with a 32 h.p. 4-cylinder Cummins. She has a speed of 12 m.p.h. consuming but 1½ gallons of fuel per hour, at a cost of 11 cents, or less than 1 cent a mile, marking a new standard of efficiency.

Her 225-gallon tank carries sufficient fuel for 1800 miles of cruising. We have in our files many parallel cases and would be glad to analyze your problems based on our experience with similar boats.

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"Look at that Ludington boat ride the waves!"

Courtesy of J. Walter Collinge

THIS is a regular expression wherever the Ludington Hydro goes out, especially in water that is rough, such as at Santa Barbara, California, where the Ludington Hydro recently captured the 2½ and 5 mile events in the time of 4.42 4-5 and 9.21 respectively. Also at Torresdale, Pa., when it finished almost a lap ahead of the nearest competing boat.

—And the Ludington Hydro not only "rides them when they are rough" but it stands the buffeting and hammering indefinitely. This is because the Ludington Hydro is made of tough three-ply Veneer, over aircraft spruce frames, regular airplane construction.

Let us send a folder on the Ludington Hydro and if you wish details of our confidential deferred payment plan—you can have your boat paid for when the season opens up in the Spring.

The Ludington Hydro is 14' long, 49" beam. Price, $225, F.O.B., Easton, Pa.

Easy to buy on our confidential deferred payment backed by Commercial Credit Companies

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Marine Ash Tray

THE only nautical fixture of its kind on the market. Cast in white metal with brass finish, this useful accessory has four lips for cigars or cigarettes and two large ash trays which can be easily removed and cleaned. Top contains unique cigar cutter, operated by a turn of the steering wheel.

Height 7½ inches

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sharpened up with the tide on her lee bow and crossed in second place. Finish order: *Wee Betty*, *Aileen*, *Starling*, *Atlantis*, *Sea Witch*, *Flirt*, *Bandit* and *Blue Streak* (disqualified). Point score: Bermuda, 18; U. S., 17¼.

Third Race

Weather conditions, which had favored the Interclubs in the first two races, were distinctly different in the final two races, held by the American Yacht Club, off Rye, in the morning and afternoon of Sunday, September 16th. A mild sou'wester greeted the boats as they came to the line established off Scotch Caps, and although the Interclubs had the best of the start, the Bermudians quickly showed their superior qualities up wind in the light going, and the order of rounding the weather mark three miles away, a buoy near Execution Light, was: *Atlantis*, *Aileen*, *Sea Witch*, *Wee Betty*, *Blue Streak*, *Flirt*, *Starling* and *Bandit*. *Blue Streak* and *Bandit* seemed to have suffered from their crash of the day before, both showing miserable form. In addition, the Americans received another setback when *Blue Streak* was disqualified for failing to give *Starling* room at the weather mark. *Wee Betty* somehow managed to pass *Starling* on the run to the finish, so the order was: *Atlantis*, *Aileen*, *Wee Betty*, *Sea Witch*, *Starling*, *Flirt*, *Bandit*, *Blue Streak* (disqualified). Score: Bermuda, 20¼; U. S., 15.

Fourth Race

The wind was even lighter in the afternoon, the course being a 10-mile triangle, a beat from Scotch Caps to the buoy off Execution Light, a quartering reach to Matinicock Point buoy, and a beam reach to the finish. Soon after a close start the Bermudians went into the lead, the order at the windward mark being: *Atlantis*, *Starling*, *Sea Witch*, *Aileen*, *Wee Betty*, *Flirt*, *Bandit* and *Blue Streak*. *Aileen* seemed to be the only Interclub fit to cope with the British craft. *Bandit* and *Blue Streak* were again out of the picture, and *Wee Betty* also seemed to have slowed down.

Starling pulled a pretty piece of team work on the second leg by luffing *Wee Betty* well in towards the Long Island shore, letting *Flirt* through. *Aileen* squirmed past both *Starling* and *Sea Witch*, so the order at the second mark was: *Atlantis*, *Aileen*, *Flirt*, *Sea Witch*, *Starling*, *Wee Betty*, *Bandit* and *Blue Streak*.

Seeing defeat staring them in the face, the Interclubs tried everything possible to gain a place or two in the final reach home. *Blue Streak* sailed down well to leeward, while *Wee Betty* held well to windward, both hoping for a break which never came. Close to the finish Shields, in *Aileen*, killed his boat in an effort to hold up *Sea Witch* and let one of his team-mates through, but no Interclub was within striking distance, and *Aileen* finally squared away to take second place a few seconds ahead of *Sea Witch*. *Atlantis* won her second race in one day, followed by *Aileen*, *Sea Witch*, *Flirt*, *Starling*, *Wee Betty*, *Bandit* and *Blue Streak*. Score: Bermuda, 23¼; U. S., 13. Total point score for series: Bermuda, 72½; U. S., 70½.

Aileen was the bulwark of the American team, being high score boat of the fleet, besides entering into team play whenever the opportunity offered. *Atlantis* was the Bermudian leader, being second in the point score, and having two wins to her credit. *Wee Betty* also had two firsts, and was only a single point behind *Atlantis*.

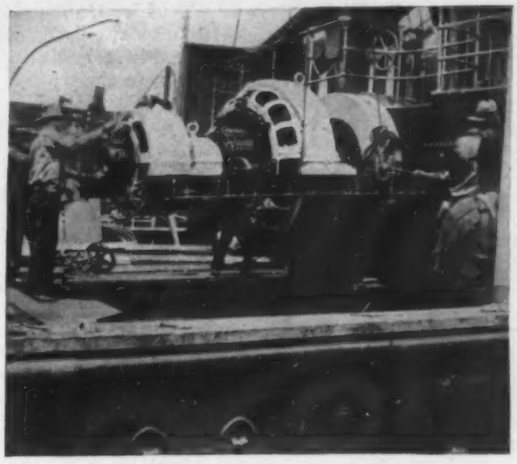
The Larchmont, Manhasset Bay and American Yacht Clubs cooperated splendidly in handling the series.

TEAM POINT SCORE

	1st Race	*2nd Race*	*3rd Race*	*4th Race*	*Total*
American Team	25¼	17¼	15	13	70½
Bermuda Team	11	18	20¼	23¼	72½

INDIVIDUAL BOAT POINT SCORE

	1st Race	*2nd Race*	*3rd Race*	*4th Race*	*Total*
Aileen (U. S.)	7	7	7	7	28
Atlantis (Bermuda)	5	5	8¼	8¼	26½
Wee Betty (U. S.)	8¼	8¼	6	3	25½
Sea Witch (Bermuda)	3	4	5	6	18
Starling (Bermuda)	2	6	4	4	16
Flirt (Bermuda)	1	3	3	5	12
Bandit (U. S.)	4	2	2	2	10
Blue Streak (U. S.)	6	..	..	1	7



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WHETHER it is the installation of new equipment or the need of repairs beyond the scope of your yacht's crew, you want quick and dependable service.

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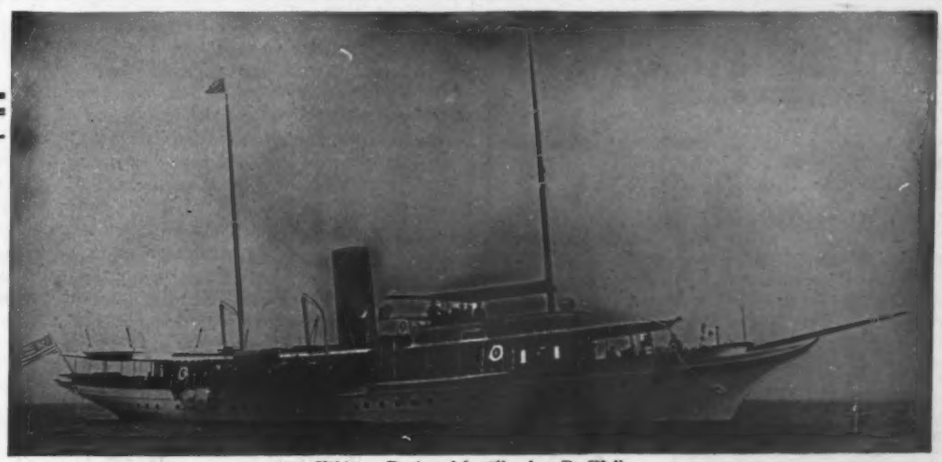

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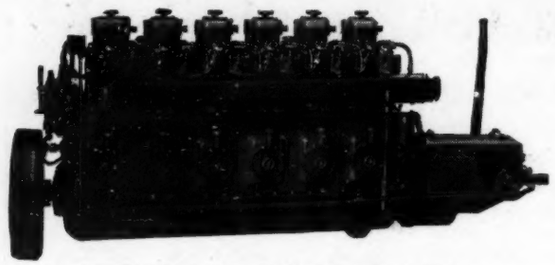

5" x 7"—Two to Six Cylinders—20 to 75 h.p.
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Throttles as slow as necessary and accelerates rapidly
—Fully described in Bulletin No. 60—

HILL DIESEL ENGINE COMPANY
LANSING, MICHIGAN
Builders of Internal Combustion Engines since 1899

Bayview Yacht Club's Long Distance Race

(*Continued from page 74*)

the far-famed 20-Rater *Gossoon*, owned by Commodore Archer and skippered by Lloyd Kurtzwarth, who was closely followed by *Neahga*, *Ardette* and *Debonair*, with W. Fisher in his little Class Y sloop *Y-Not* rolling along close enough in their wake to snatch second place on corrected time.

Among the cruiser class only five of the 13 starters finished. These were the yawls *Barbette* and *Arethusa*, and the schooners *Kittiwake*, *Navanna* and *Viking*. All of these, except the *Arethusa*, are modern yachts. The *Arethusa* is of decidedly ancient vintage, and to her skipper, A. J. Tobin, and her crew should go high praise for the pluck they displayed in bringing the old craft in second to the *Barbette*. The struggle between these two yachts will go down in the annals of yacht racing on the Great Lakes as one of the most sensational and surprising episodes of the sport on fresh water.

During the late war the *Arethusa* was laid up in Walkerville, Ontario, when an edict of the Canadian Government robbed her of her outside lead ballast. Her owners, instead of replacing the lead, poured five tons of concrete inside her bilges. That's the way she was ballasted when her present owner bought her last spring, and that's the way she was entered in the race. On the evening of the race there was a whole sail breeze blowing from the south southwest, and the old *Arethusa*, with all her canvas set, maneuvered back and forth before the starting line to the intense amusement of all the contestants. Jibes and jeers greeted her from all points of the compass. "Take the old white mare back to her stable! Where did you get that concrete raft?"

At 6 P.M. the starting gun was fired, and over 20 sail swept across the line with flowing sheets, with the old yacht floundering astern, four minutes late. Breaking out his balloon jib, her skipper set forth to give the fleet the surprise of the race. Yacht after yacht was quickly passed and left astern, and the race resolved itself into a contest between the *Arethusa* and the *Barbette*. Great excitement prevailed, when the "old tub," as the former vessel was dubbed, crept abeam of her famed opponent, and then drew ahead.

At 8 P.M. those on the power yacht *Restless*, anchored at the Thames River Light as stake boat on the first turn of the triangle, were startled by the appearance of a big yawl with balloon jib, staysail, mainsail and jigger bellied out. The first yacht was not expected to appear for hours. Training the cruiser's searchlight on the approaching vessel, those on board were just in time to see the mainsail of the yawl jibe with a bang. For a moment they glimpsed the *whole keel* of the vessel as the stern swung around and the letters *Arethusa* glistened for an instant, and were gone. For the next hour the *Arethusa* logged over 12 statute miles with her lee rail buried. When approaching the ship channel her balloon jib burst with a loud report and went sailing off to leeward. Several times her cockpit filled. Her main sheet was eased when her mast threatened to go, and she was with difficulty kept on her course to Point Huron buoy, which marked the second turn. When within a quarter mile of the turn the old-timer was compelled to heave-to for the purpose of pumping ship. It was at this point that the *Barbette*, like a phantom ghost, slid out of the flying spume, passed her, and again took the lead. Rain and hail now assailed the old craft, and at times steering her with the sheets was resorted to as she thundered onward in the wake of the *Barbette* and finished just 14 minutes behind her. On corrected time this was reduced to 6 minutes, 29 seconds.

The experience of *Barbette* and *Arethusa* was typical of most of the contestants. All were tested to the utmost by the heavy weather, and every vessel that finished beat the old record of the *Ardette* by from 9 to 12 hours. The record has been reduced from 18 hours to 6 hours, 52 minutes, one that may never be equaled again on fresh water.

Here is the official record of the boats that finished:

			Elapsed Time	*Corrected Time*
RACING CLASS				
Quiver	Lodge	G. P. Y. C.	7:15:00	7:15:00
Y-Not	Fisher	D. Y. C.	8:37:00	7:29:36
Gossoon	Kurtzwarth	B. Y. C.	7:36:00	7:36:00
Neahga	Breadon	B. Y. C.	7:36:30	7:36:30
Ardelle	Cross	D. Y. C.	7:49:30	7:49:30
Debonair	Marxer	D. B. C.	8:17:00	8:17:00
CRUISING CLASS				
Barbette	Archer	B. Y. C.	6:52:00	6:52:00
Arethusa	Tobin	C. Y. C.	7:06:00	6:58:29
Kittiwake	McMath	D. B. C.	8:17:00	7:10:39
Nawanna	Sheehan	B. Y. C.	8:52:00	8:15:00
Viking	Farnsworth	D. Y. C.	11:30:00	10:05:50

HOWARD M. HARTMAN.

BURROWS

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A West Indian night was closing in on the Ile de Caille

FREDERIC A. FENGER

captures its romance and tells you its story:

"In the shortening dusk I had been watching the cocoa buyer fade back into the shadows. . . . He was gone now, all but his voice, and even that seemed to have been resolved in the night. The doorway alone remained, its lower half blue-black sea, and above, moonless sky strewn with myriads of stars. . . . The cocoa buyer, I thought, must have fallen asleep from the drone of his own voice. Then came the explosion of a match and the shop sprang up around us while he lighted his pipe."

The author takes you upon the track of all the mystery, and beauty, and adventure of the old Ile de Caille in his serial

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"Tai Tai," Sydney M. Colgate, owner. A 32½ ft. double cabin Llenroc Express Cruiser.

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Should be Ordered Now to Secure Advantage of 1928 Prices

These fast 25- to 30-mile cruisers are custom built to exact standards under close personal supervision.

Only a limited production at the present low cost will be available for Spring delivery. Materially increased prices will be effective after January 1st.

AGAIN AT NEWPORT!
Champion Llenroc Cruisers prove their superiority.
"Barjohro," a Sport Llenroc Express Cruiser
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TOPPAN BOAT & ENGINE CO.
MEDFORD, MASS.

Did you ever turn a turtle —shoot an alligator—shake a nut from a coco-palm— snag a sail-fish?

Sail over sapphire seas to a glorious tropical island offering to the sophisticated sportsman thirteen daily hours of sunshine for boating, fishing, golf, motoring (cars are duty-free), polo, tennis, horse-racing (100 days); and at night the smart amusements of International Society in Opera House, Casino, and palatial Yacht Clubs.

Cuba's famous harbors—Havana, Mariel, Cardenas, Batabano, Trinidad, Santiago, Guantanamo, Nipe Bay, and a score of others—offer safe anchorage and splendid port facilities the year around.

Information from the Cuban National Tourist Commission, Havana; all Cuban Consulates, or any travel agency.

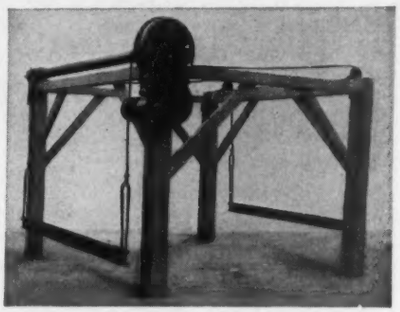
CUBA

Electric Hoist for Small Boats

(*Continued from page 86*)

To operate the new device the owner merely drives his boat into the boathouse, steps out, and touches an electric button. The boat rises gently to the proper position, the power is cut off, and the boat hangs in slings, safe from the buffeting of the waves and free from all danger of becoming water soaked. By means of the specially constructed braking attachment, the boat is lowered slowly and smoothly to the surface again.

The mechanism of the electric model power hoist consists of a cable drum, driven by gears from an electric motor, and mounted at one end of a wooden frame which may be easily constructed by the owner from the



The new Westinghouse Electric boat hoist.

manufacturer's instructions. The model may be equipped with either chains and hooks for lifting rings, or with cross beams for a boat cradle. In either case the sustaining parts are supported by half-inch steel cable which winds on the cable drum.

The power hoist is adapted to three lifting capacities according to the size of drum used: 8,000 lbs. with a 4-inch drum, and 6,000 lbs. with a 5-inch drum. The corresponding lifting rates are 11 inches and 14 inches per minute, the lowering rates 21 inches and 30 inches per minute, and the lifting ranges 9 feet and 10½ feet. Thus the device may be used for lifting craft varying in size from a small row boat to a power boat of the cruiser class.

The mechanism is driven by a Westinghouse one-quarter horsepower motor, which may obtain its power from any light socket using 110–120 volt, 60-cycle, single-phase, alternating current. The entire mechanism is completely enclosed in an oil tight case.

The main bearings are fitted with roller bearings, and the high speed bearings are of bronze. The main gears are cast iron, and all others are cut. All gears run in oil. The automatic clutch is centrifugally operated. The lock brake and governor are automatic in operation and positive in action.

A hand hoist, operated by a wheel and crank arrangement but otherwise similar to the power hoist, is also manufactured by the Monnier Brothers Company.

T. A. Kyle Co. Buys Hawkins Yard

T. A. Kyle Co., Inc., of City Island, has recently acquired the old Hawkins yard, one of the oldest boat yards in City Island. It was here that several of the famous Cup Defenders were hauled out, among them the *Columbia*, *Defiance*, *Resolute*, and *Valkyrie*. The Kyle Co. now has excellent facilities for hauling out for storage and repair work as well as for construction work.

Photo by Edwin Levick

The new Camargo, *designed by Henry J. Gielow, Inc., and built by Lawley, is equipped with a 60-cell MVA Exide-Ironclad Marine Battery of 396 A.H. capacity.*

For the Camargo's electrical needs

Smooth, unfluctuating power and steady lights are furnished by a dependable Exide-Ironclad Battery

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Exide-Ironclads meet every marine battery need. They maintain a consistently high voltage. They are economical to charge. They require little care to keep them in perfect condition. They have a long life.

More than this, Exide-Ironclad Marine Batteries are *completely sealed.* The special construction of the positive plate gives them unusually long life.

And Exide-Ironclads *always* give steady, dependable service, the result of Exide's 40 years' experience in storage battery manufacture.

These are the reasons why more and more architects and builders are specifying Exide-Ironclad Marine Batteries.

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An Exide-Ironclad Marine Battery

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Magnificent new quadruple-screw *M. S. "BERMUDA"*, (20,000 tons), unsurpassed in luxury by any ship afloat, alternates in semi-weekly service with the twin-screw *S. S. "FORT VICTORIA"* (14,000 tons).

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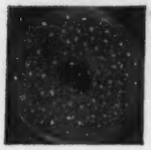
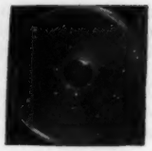


Science put actual mouth conditions under the microscope. White spots denote millions of disease germs which swarm the air you breathe.

A microscopic view of same culture plate after application of Forhan's Antiseptic Refreshant. See how few germs remain. Danger has been removed.



CARELESS

New faces... new names on doors ... The man who drifts from job to job is more to be pitied than condemned.

For generally he is the victim of a little lapse in personal care that makes health none too good and friends too few. His trouble can be traced to germs that fill the air we breathe.

They prey on health and spread disease. Often they cause bad breath—the danger signal of more serious troubles. In the keen competition of business, only the fittest survive. No office wants a man who is forever frail in health and friendless. So now take every precaution to protect yourself.

And remember ....

bad

Breath

IS BAD NEWS

CAREFUL

Now science has perfected this safe antiseptic mouthwash that wards off mouth and throat infection and removes bad breath—little but important things that often cost a man his job.

Tested in the laboratory in competition with other popular mouthwashes, Forhan's Antiseptic Refreshant proved its worth.

It removes danger that lurks in cold and sore throat. It soothes inflamed tissue and renders offensive germs harmless. It removes the cause of bad taste and bad breath (except in case of focal infection).

No telltale odor... Refreshing and clean in taste. You'll like this new antiseptic mouthwash and the way it keeps breath and taste sweet. Use it—every morning, every night. All druggists, 35c and 60c. Get a bottle.

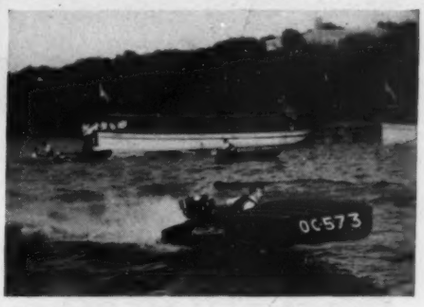
use

Forhan's

ANTISEPTIC REFRESHANT

The Silver Streak Racer

The present year has developed many sensational outboard motor boats and records and predictions have fallen at every regatta. Among those boats which have been in front place in many Mid-Western regattas has been the Silver Streak racer, built by the Isle La Plume Boat Works, of La Crosse,



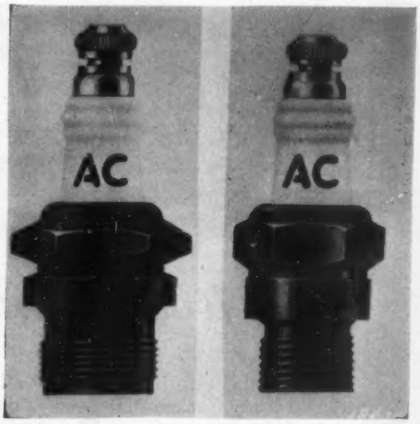
The Silver Streak, a 13½-foot outboard racer built by the Isle La Plume Boat Works.

Wis. The Silver Streak is 13′ 6″ long, with beam of 4′ 8″. The builders claim that it is non-capsizable. The boat is extremely well built and the bottom has diagonal surface reducing steps which allow an unusually extreme beam and reduces the wetted surface to less than three square feet when the boat is planing.

New Spark Plugs for Marine Engines

The introduction of two specially designed spark plugs for use in marine engines, is announced by the A. C. Spark Plug Company.

In the accompanying reproduction Type



Some new marine spark plugs by the A. C. Spark Plug Co.

"AM" ⅞-inch regular marine is shown on the left; Type "GM" metric regular marine is on the right. Both plugs are built for high speed, high compression marine engines, as well as for outboard engines in racing trim.

Dodge Plant Not to Close

We have been reliably informed that, contrary to prevalent reports, the plant of the Horace E. Dodge Boat Works, Inc., of Detroit, will continue the manufacture of the popular Dodge Watercar and are to bring out a new model which will be exhibited at the 1929 Motor Boat Show.

H. Wade Hoffman, who won the Class B Amateur event at the Detroit Regatta in September with a Caille outboard motor.

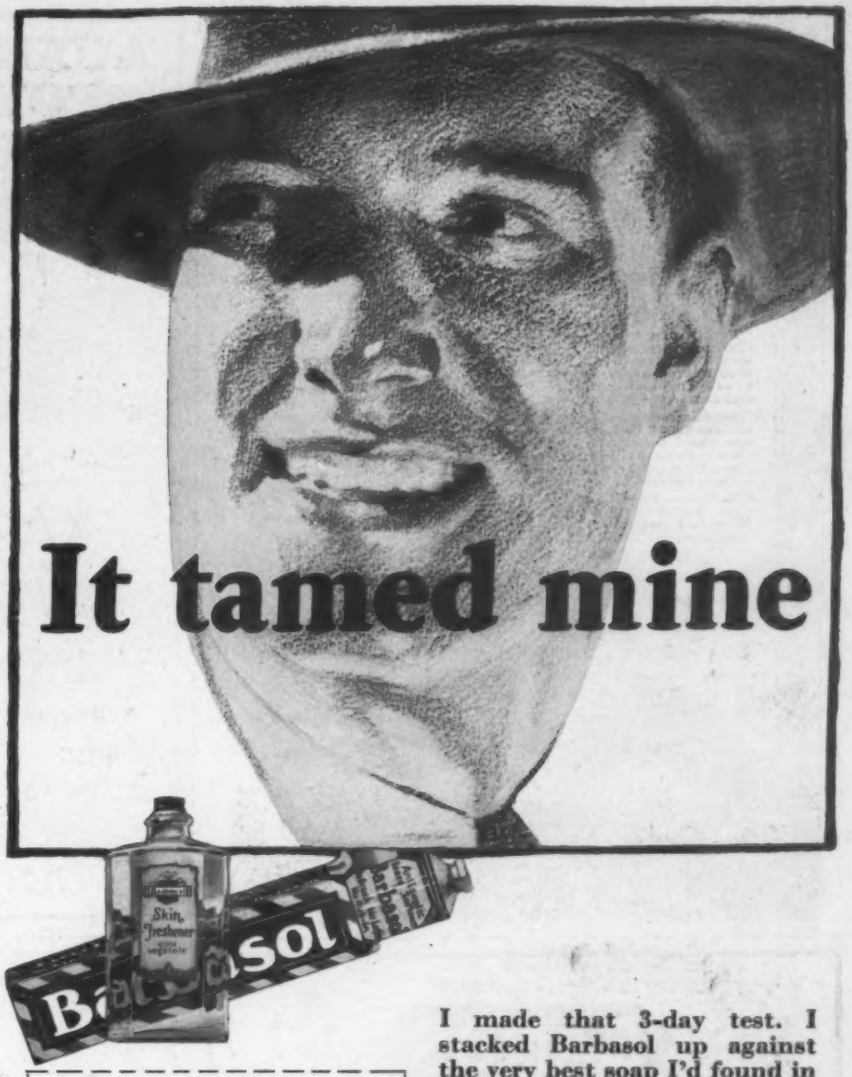
Chris-Craft Building New Enclosed Boat

IN keeping with the present day desire for greater speed, maneuverability and luxury, Chris Smith and Sons Boat Company, Algonac, Mich., has announced a new 30-mile-an-hour enclosed boat, which will combine for the first time the performance qualities of the runabout with comfortable lounging and sleeping quarters and luxuriously appointed cabin. In one boat it combines the qualities of a commuter, a fishing boat, a day boat and an express cruiser, and carries sufficient gasoline under normal conditions to cruise 300 miles.

The new boat is 38 feet in over all length, with beam of 10 feet. The hull is of the V-bottom type with a pronounced flare forward and a decided tumble-home aft. It is an all mahogany craft and has a large forward cockpit protected from the wind by a neatly designed windshield. A mellon type top provides complete weather protection and when not in use folds down on the forward deck just in front of the windshield. The forward cockpit is perfectly dry and comfortable at all speeds. The boat can be driven from the forward cockpit or from the bridge because of a special dual control arrangement.

The cabin is designed to provide comfortable sleeping quarters for four. There are Pullman-type combination seats and berths on each side, a galley on the forward port side and a linen closet and lavatory on the forward starboard side. In the galley there is an icebox, a generous size sink, a two-burner stove and a buffet locker, together with suitable storage space. The construction of the galley is so designed as to separate it as much as possible from the cabin proper. The clothes locker is of generous size and length, conveniently arranged and fitted with a ventilating door. A table of novel design is provided for use between the two seats.

Installed under the bridge deck is a 200 h.p. Chris-Craft Marine Motor easily accessible through large hatches. There is a water-tight bulkhead both forward and abaft the engine room compartments, besides a water tight bulkhead in the bow.



B. S. F.!

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I made that 3-day test. I stacked Barbasol up against the very best soap I'd found in 20 years of rasslin' with this ol' barnacled, seaweed crop of mine.

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Because Barbasol is the Modern Way of Shaving — faster, simpler, cleaner. Look:

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2 — Spread on Barbasol (but don't rub in)

3 — Shave!

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